Illinois Commerce Commission

Assessment of AmerenIP's

Reliability Report and Reliability Performance

for Calendar Year 2004

Pursuant to 83 Illinois Administrative Code 411.140

November 10, 2005

1. Executive Summary

Pursuant to Section 16-125 of the Illinois Public Utilities Act and the Commission's electric reliability rules in 83 Illinois Administrative Code, Part 411, Illinois Power Company d/b/a AmerenIP (AmerenIP) filed its annual electric reliability report for calendar year 2004 on June 1, 2005. It filed a revised report on June 21, 2005, (accepted by the Clerk's office on June 28, 2005), to include information omitted from the initial report and correcting a data error in the initial report. AmerenIP filed another revised report on July 21, 2005, correcting a non-compliant item and adding some additional explanation of deviations in its reliability plan from that reported in the prior year report. This document details Staff's assessment of AmerenIP's 2004 reliability report and Staff's evaluation of AmerenIP's reliability performance for calendar year 2004.

AmerenIP's reported company-wide average interruption frequency index (SAIFI) for 2004 worsened by 17% from that reported for year 2003, and is nearly 30% worse than in 2002. Its overall SAIFI performance was exactly in the middle of the nine-utility group in 2004. AmerenIP's worst circuit SAIFI for 2004 was 13% better than that reported for 2003 and was slightly worse than average among the other utilities, with three utilities performing worse in this category in 2004.

AmerenIP's reported company-wide average duration of customer interruptions (CAIDI) for 2004 was 17.5% worse that it reported for year 2003, and has shown a significantly worsening trend since 2001. Only AmerenUE (278 minutes) reported a worse average overall customer interruption duration than AmerenIP's 268 minutes in 2004. AmerenIP's worst circuit CAIDI for 2004 was 32.4% worse than for 2003 and has shown a significant worsening trend since 2001. At 3,011 minutes (over 50 hours), AmerenIP ranked last among the nine reporting utilities in this category in 2004.

AmerenIP listed weather as the most predominant cause of customer interruptions in 2004, causing 46% of its total customer interruptions. AmerenIP reported forestry problems as the cause for only 2.63% of the total customer interruptions, though Staff believes that some of the interruptions attributed to weather may have been tree related. Field inspections revealed improvement in AmerenIP's tree trimming program during the past year, but there is a continuing need for more improvement in AmerenIP's tree trimming program (see Attachment "R"). AmerenIP needs to assure that all trees near its lines throughout its service territory are trimmed such that there are no tree contacts with its energized primary conductors before it returns to trim them again.

Staff found <u>fourteen</u> National Electrical Safety Code (NESC) violations during its inspections of AmerenIP electric circuits this year, all of which pose a threat to service reliability and public safety. At Staff's request, AmerenIP field checked all of its electric line crossings of interstate highways and found 110 of those crossings were not in compliance with the current NESC. Numerous structural and lightning arrester problems were also noted on AmerenIP's worst performing and other circuits inspected this year. Many of these problems, while not necessarily causes of poor performance in 2004, will have

adverse effects on reliability and public safety in the future if not corrected. (Photos of some of the structural problems found are included in this report, and summaries of problems noted by Staff on AmerenIP circuits inspected this year are included as Attachments “A” through “Q”). AmerenIP should perform field inspections of all circuits on a regular basis and correct the problems found which can significantly affect reliability or public safety.

AmerenIP listed several ongoing corporate, operating, and maintenance activities that the company is doing to improve reliability, summarized in Section 9 of this report. Some of these are clearly positive steps toward reliability improvement, but the reliability benefits of some are not clear.

AmerenIP reported that all remedial work on worst performing circuits described in its 2003 reliability report has been completed.

While the above discussion covers the most significant items in a general way, a total of seven specific recommendations are included in this Staff report, summarized on page 44.

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2. Introduction

Beginning with the year 1999, and at least every three years thereafter, 83 Illinois Administrative Code Part 411.140 requires the Commission to assess the annual reliability report of each jurisdictional entity and evaluate its reliability performance. Code Part 411.140 requires the Commission evaluation to:

A) Assess the reliability report of each entity.

B) Assess the jurisdictional entity's historical performance relative to established reliability targets.

C) Identify trends in the jurisdictional entity's reliability performance.

D) Evaluate the jurisdictional entity's plan to maintain or improve reliability.

E) Include specific identification, assessment, and recommendations pertaining to any potential reliability problems and risks that the Commission has identified as a result of its evaluation.

F) Include a review of the jurisdictional entity's implementation of its plan for the previous reporting period.

This document provides Staff's assessment of the annual reliability report covering calendar year 2004 filed by Illinois Power Company d/b/a AmerenIP (AmerenIP) on June 1, 2005 (revised and re-filed on June 21 and July 21, 2005), and Staff's evaluation of AmerenIP's reliability performance for calendar year 2004. This report is organized to include all of the above listed requirements.

3. AmerenIP's 2004 Customer Base and Service Territory

As of December 31, 2004, AmerenIP provided electric service to 600,585 customers in Illinois, comprised of 534,542 residential customers (89.0%), 65,717 commercial customers (10.9%), and 326 industrial customers (less than 0.1%). AmerenIP's service territory covers approximately 15,000 square miles and primarily serves rural areas and small towns.

AmerenIP's service territory consists of sixteen geographic areas:

Belleville	Danville	Hillsboro	Maryville
Bloomington	Decatur	Jacksonville	Mt. Vernon
Centralia	Galesburg	Kewanee	River Bend
Champaign	Granite City	LaSalle	Sparta

4. AmerenIP's Electric Distribution System

Approximately 88% of AmerenIP's electric distribution system is overhead, with the remaining 12% being underground. AmerenIP reported a total of 1,264 electric circuits, 899 of which serve customers at 15 kV or less.

Code Part 411.120(b)(3)(G) requires the utilities to report on the age of their distribution facilities. AmerenIP estimates that the approximate average age of its distribution equipment ranges from 10.3 years (for underground conductor and devices) to 19.6 years (for station equipment). AmerenIP estimates the remaining average life of its distribution equipment to range from 12.7 years (for underground conductor and devices) to 40.9 years (for structures and improvements). See Table 15 (page 37) in AmerenIP's annual reliability report for more details.

5. Assessment of AmerenIP's 2004 Reliability Report

Illinois Power Company d/b/a AmerenIP (AmerenIP) filed its annual electric reliability report for calendar year 2004 on June I, 2005, as required by Section 16-125 of the Public Utilities Act and the Commission's electric reliability rules in 83 Illinois Administrative Code, Part 411. AmerenIP filed a revised annual reliability report on June 21, 2005, (accepted by the Clerk's office on June 28, 2005), to include information omitted from the initial report and correcting a data error in the initial report. AmerenIP filed another revised annual reliability report on July 21, 2005, correcting a non-compliant item and adding some additional explanation of deviations in its reliability plan from that reported in the prior year report.

AmerenIP's reliability report is well organized, generally, with the information sequenced to follow the pattern of Code Part 411. AmerenIP's initial and first revised reports were non-compliant with the reporting requirements specified in the Code in one respect:

- With only one exception (Jacksonville Circuit 331), costs for remedial actions taken or planned for each worst performing circuit were not included as required by Code Part 411.120(b)(3)(J).

This non-compliant item was addressed in AmerenIP's second revised reliability report filed July 21, 2005.

6. AmerenIP's Historical Performance Relative to Established Reliability Targets

Code Part 411.140(b)(4)(A-C) establishes electric service reliability targets that jurisdictional entities (utilities) must strive to meet. These targets specify limitations on customer interruptions as well as hours of interruption that a utility must strive not to exceed on a per customer basis. Code Part 411.120(b)(3)(L) requires each utility to

provide a list of every customer, identified by a unique number, who experienced interruptions in excess of the service reliability targets, the number of interruptions and interruption duration experienced in each of the three preceding years, and the number of consecutive years in which the customer has experienced interruptions in excess of the service reliability targets.

In April 2004, Illinois Power (now AmerenIP), along with all other regulated Illinois electric utilities, agreed to report on all interruptions (controllable and uncontrollable) as defined in Code Part 411.20 in relation to the service reliability targets for the reporting periods of 2003 through 2007, and to include the specific actions, if any, that the utility plans or has taken to address the customer reliability concerns.

The customer service reliability targets are listed in Table 1.

Table 1
CUSTOMER SERVICE RELIABILITY TARGETS

Immediate primary source of service operation voltage	Maximum number of interruptions in each of the last three consecutive years	Maximum hours of total interruption duration in each of the last three years
69kV or above	3	9
Between 15kV & 69kV	4	12
15kV or below	6	18

In its 2004 reliability report, AmerenIP reported that the following numbers of customers in each of the above categories exceeded the service reliability targets in each of the three preceding years:

- 69kV or above: None
- Between 15kV & 69 kV: 2
- 15kV or below: 367

It is notable that the 369 AmerenIP customers exceeding the reliability targets in 2004 is 2.3 times the number (160) reported in Illinois Power's 2003 reliability report. AmerenIP reported that thirteen of the 367 customers in the 15 kV or below service voltage category exceeded the reliability targets in each of the past five years, and sixteen others in that category exceeded the reliability targets in each of the past four years.

AmerenIP investigated each of the reported target violations, determined the causes for the service interruptions, and reported specific actions taken and planned to address these problems. AmerenIP's reported actions taken and planned seem reasonable.

It is also noteworthy that AmerenIP reported that 7,713 of its customers experienced more than six interruptions in 2004, up 72% from the 4,473 customers in this category in 2003. In the extreme cases, a total of 110 AmerenIP customers were in the 11 to 15 interruptions category in 2004, up from the 99 reported in this category in 2003. See Section 8 of this

report for more information on this, including trends of AmerenIP customers experiencing high numbers of interruptions.

7. Analysis of AmerenIP's Year 2004 Reliability Performance

Table 2 shows AmerenIP's company-wide reliability indices for calendar year 2004 compared to the other eight reporting Illinois electric utilities. This data indicates that AmerenIP was exactly in the middle of the nine utility group in terms of average frequency of system interruptions (SAIFI) in 2004, but ranked seventh in terms of average frequency of customer interruptions (CAIFI). Only Mt. Carmel Public Utility Company and MidAmerican Energy Company had worse overall CAIFI statistics than AmerenIP in 2004.

At 268 minutes, AmerenIP ranked eighth among the nine reporting utilities in terms of average duration of customer interruptions (CAIDI) in 2004, with only AmerenUE (278 minutes) being worse in this category. AmerenIP's overall CAIDI has gotten progressively worse in each of the past three years, with its overall CAIDI for 2004 being 17.5% worse than it reported for 2003, 61.4% worse than it reported for 2002, and more than double what it reported for 2001.

Table 2
ILLINOIS UTILITY RELIABILITY INDICES
CALENDAR YEAR 2004

	SAIFI	CAIDI (minutes)	CAIFI
AmerenCIPS	1.66	143	2.01
AmerenUE	1.69	278	2.05
AmerenCILCO	1.45	247	2.03
AmerenIP	**1.49**	**268**	**2.26**
ComEd	1.21	128	2
MidAmerican	2.028	69.59	2.716
Interstate	0.64	77.2	1.4
Mt. Carmel	2.69	177.06	2.86
South Beloit	0.61	96	1.35

SAIFI: System Average Interruption Frequency Index. This represents the average interruption frequency for all customers on the electric system, including customers who had no interruptions (total customer interruptions divided by total system customers).

CAIDI: Customer Average Interruption Duration Index. This represents, for the group of customers that actually had one or more interruptions, the average interruption duration.

CAIFI: Customer Average Interruption Frequency Index. This represents the average interruption frequency for the group of customers that had interruptions. A CAIFI index much higher than SAIFI suggests that subsets of customers experienced significantly more frequent interruptions than the overall system average.

Note: The comparison of company-wide reliability indices for Illinois electric utilities should indicate relative reliability levels achieved. The reader of this report should, however, keep in mind that each Illinois electric utility has a unique electric system, a unique group of customers, and a unique method of defining, recording, and reporting the interruption data. These differences make precise utility-to-utility comparisons difficult.

Table 3 shows a breakdown of thirteen causes of sustained customer interruptions by cause category, as reported by AmerenIP for year 2004. The total number of interruptions ("events") reported for 2004 is up 15.1% from the same data reported for year 2003, and up 19.2% from the same data reported for year 2002. The total number of customer interruptions went up 18.1% from 2003 and 30.5% from 2002.

AmerenIP reported that the highest percentages of customer interruptions in 2004 were caused by weather (46.04%) and "intentional" (13.49%). Overhead equipment (10.94%) and animals (10.43%) were the next leading causes. AmerenIP listed trees as the cause for only 5.41% of the events and 2.63% of the customer interruptions in 2004, though some of the interruptions attributed to weather may have been tree related. Staff's limited field inspections of tree conditions in AmerenIP's service territory (in Jacksonville and Decatur) in May and June 2005 indicated tree trimming improvement from the prior year, but a significant number of remaining problems in both cities inspected. See Section 7 and Attachment "R" of this report for details.

Table 3
TOTAL INTERRUPTIONS BREAKDOWN BY CAUSE

Interruption Cause Category	Events	Customers Interrupted	Percent of Events	Percent of Customer Interruptions
ARES / Other Total Utility	34	14,683	0.15%	1.39%
Jurisdictional Entity / Contractor Personnel Errors	204	25,354	0.87%	2.40%
Customer	131	3,522	0.56%	0.33%
Public	975	42,032	4.17%	3.98%
Weather Related	6,892	486,141	29.48%	46.04%
Animal Related	3,468	110,099	14.83%	10.43%
Tree Related	1,266	27,767	5.41%	2.63%
Overhead Equipment Related	3,133	115,478	13.40%	10.94%
Underground Equipment Related	1,178	18,649	5.04%	1.77%
Intentional	5,707	142,414	24.41%	13.49%
Transmission & Substation Equipment Related	88	53,223	0.38%	5.04%
Unknown	294	16,424	1.26%	1.56%
Other	10	71	0.04%	<0.01%
TOTAL:	**23,380**	**1,055,857**	**100.00%**	**100.00%**

Code Part 411.120(b)(3)(I)&(J) requires the reporting utility to list its worst performing circuits (subsection I) and then state (subsection J) what corrective actions are planned to improve those circuits' performance. Table 4 shows the AmerenIP circuits with the highest (worst) reliability indices for 2004. The bolded values represent the indices that caused the circuit to be a worst performer.

Table 4
AmerenIP CIRCUITS WITH HIGHEST SAIFI, CAIFI, & CAIDI
CALENDAR YEAR 2004

AREA	CIRCUIT	SAIFI	CAIFI	CAIDI (minutes)
Belleville	124	**3.70**	**3.99**	135
Belleville (Rural Belleville, Freeburg)	163*	**3.72**	**4.01**	337
Belleville (New Athens)	235*	**3.92**	**4.09**	125
Bloomington (Danvers, Stanford, & rural)	202*	**3.66**	3.75	1182
Bloomington	204	0.69	1.55	**2169**
Danville	112	0.88	1.00	**1765**
Danville (Danville)	121*	**3.73**	**4.23**	318
Danville	141	1.41	1.53	**3011**
Danville	148	1.82	1.94	**1867**
Danville	150	0.21	1.18	**1899**
Danville	180	1.01	1.40	**2065**
Danville	184	0.16	1.00	**2184**
Danville	187	1.72	1.78	**2277**
Danville	191	1.43	1.57	**1470**
Danville	193	0.93	1.11	**1663**
Danville (Georgetown, Olivet, Vermilion Grove, & rural)	212*	**3.97**	**4.03**	187
Decatur (Decatur & rural)	143*	3.54	**4.03**	151
Granite City (Venice, Brooklyn, & National City)	300*	**5.36**	**6.04**	308
Jacksonville	108	2.51	**4.07**	154
Jacksonville (Jacksonville & rural)	331*	**3.71**	3.90	590
Kewanee (Rural Altona, Oneida & rural, & rural Wataga)	205*	**4.31**	**4.49**	155
Mt. Vernon (Mt. Vernon)	107*	0.81	**7.09**	50
Sparta (Chester & rural)	915*	**3.70**	3.98	99

Notes: *Belleville Circuit 124 was also a worst SAIFI & CAIFI performer in 2002.*
Belleville Circuit 163 was also a worst SAIFI & CAIFI performer in 2000 and 2002.
Bloomington Circuit 202 was also a worst SAIFI & CAIFI performer in 1999.
Bloomington Circuit 204 was also a worst CAIDI performer in 2002.
Danville Circuit 121 was also a worst CAIDI performer in 2001.
Danville Circuit 184 was also a worst CAIDI performer in 2002.
Jacksonville Circuit 331 was also a worst SAIFI & CAIFI performer in 1999.
Sparta Circuit 915 was also a worst SAIFI & CAIFI performer in 1999.

As part of his review of AmerenIP's 2004 reliability, Staff's Senior Electrical Engineer Jim Spencer, accompanied by Ameren Services personnel, inspected eleven of AmerenIP's reported worst performing circuits, marked with asterisks (*) in Table 4. Staff also inspected the following four additional AmerenIP "next-worst SAIFI" circuits:

- Champaign Circuit 502 (Mayview, rural St. Joseph, Glover, & rural Ogden)
- Granite City Circuit 290 (Madison & Granite City)
- Belleville Circuit 166 (Belleville, Rentchler, & rural)
- Hillsboro Circuit 807 (Bunker Hill, Woodburn, & rural)

Because of a high number of potential reliability problems found in 2004, Staff performed a partial re-inspection of Galesburg Circuit 135 (Alpha, Woodhull, New Windsor, Rio, & rural), which was one of AmerenIP's worst performing circuits in 2003. Staff also performed spot-checks of prior-year circuit problems noted on Champaign Circuit 222 (in Champaign) and of circuit problems on Decatur Circuit 192 (near Niantic), Decatur Circuit 190 (near Illiopolis), and Hillsboro Circuit 803 (in Benld).

The field inspections allow Staff to verify that work was performed on the circuits as reported by the utilities and to see if there are any apparent reasons for poor performance of these circuits. Staff also notes any problems with the facilities it observes which may pose a threat to future service reliability or to public safety. For example, Staff looks for poor tree trimming practices, broken poles, split crossarms, damaged electrical devices, etc.

Summaries of items noted by Staff during the field inspections of the selected AmerenIP distribution circuits this year are included in this report as Attachments "A" through "R". *(As mentioned to AmerenIP when providing them with a copy of these summaries in June 2005, the summary for each of the circuits inspected represents typical observations noted by ICC Staff during the field inspections and is not intended to represent all of the problems or potential problems that may exist on each circuit. Also, Staff's inspections are not intended to take the place of the more thorough, detailed inspections that should be performed periodically by the utility company.)*

Staff noted several mapping errors and several cases where roads and/or towns were not labeled on the circuit maps provided by AmerenIP again this year. While these problems were fewer than in some past years, AmerenIP should continue its efforts to improve its circuit maps and make them more user friendly.

Champaign Circuit 502 is a 12 kV circuit serving Mayview & rural, rural St. Joseph, Glover & rural, and rural Ogden, all east of Urbana. While not on AmerenIP's worst performing circuits list for 2004, this circuit was one of AmerenIP's next ten worst SAIFI circuits, with a SAIFI of 3.15 and a CAIFI of 3.17. During the inspection of this circuit on March 7 & 9, 2005, Staff noted that tree trimming looked good. Staff also noted animal guards and "additional" lightning arresters throughout the circuit, as well as several new poles and crossarms. There were many errors on the circuit maps provided by AmerenIP. Four National Electrical Safety Code (NESC) violations were noted, two involving single crossarms supporting primary crossings of I-74 (see discussion beginning on page 27 of this report), one involving inadequate clearance to a 69 kV steel tower, and one involving inadequate clearance to a skip-span pole. Staff's field inspection notes are summarized on Attachment "A". Figures 1 through 5 show some of the problems noted on this circuit.

Figure 1 (Photo 05A7)
Primary too close to skip-span pole,
(NESC clearance violation)
Circuit 502, Rd. 1700N, St. Joseph

Note: AmerenIP reported that it removed the top portion (approximately 12 ft.) of this skip-span pole on June 15, 2005. This location is now in compliance with NESC clearance requirements.

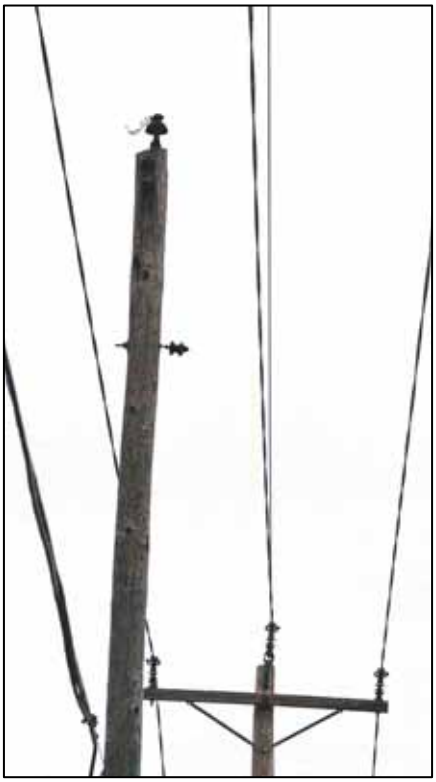


Figure 2 (Photo 05A10)
Badly split pole top,
Circuit 502, Rd. 2075E, west of St. Joseph

Figure 3 (Photo 05A12)
Badly split crossarm,
Circuit 502, along RR west of Mayview

Figure 4 (Photo 05A15)
Badly split crossarm,
Circuit 502, Rd. 1900E, south of Mayview

Figure 5 (Photo 05A17)
Primary too close to 69 kV lattice tower,
(NESC clearance violation)
Circuit 502, Rd. 1700N, north of Mayview

Note: AmerenIP reported that it moved the 12 kV distribution circuit farther away (7' 8") from the 69 kV transmission tower on July 18, 2005. This location is now in compliance with NESC clearance requirements.

Kewanee Circuit 205 is a 12 kV circuit serving a rural area west and southwest of Altona, the community of Oneida, and rural areas south of Oneida and east of Wataga. It was a worst performing circuit in 2004, primarily because of lightning (77% of the interruptions) and wind (22% of the interruptions). When inspecting this circuit on April 4, 2005, Staff noted several new poles and crossarms and that tree trimming and animal guarding looked good. Several instances of lightning damage were noted, but Staff also found that many additional lightning arresters, in addition to those at transformers and other devices, had been installed throughout the circuit. Many guy markers were missing, far more than on most AmerenIP circuits inspected. See Attachment "B" for a summary of Staff's inspection notes. There were several errors on the circuit maps provided by AmerenIP, and some of the roads and the town of Oneida were not labeled. Maps were not initially provided for Galesburg Circuit 205, which is a continuation of this circuit. Figures 6 through 9 are photographs of some of the problems noted on the Kewanee portion of this circuit.

Figure 6 (Photo 05C2)
Broken wood pin,
Circuit 205, along extension of Center St., Oneida

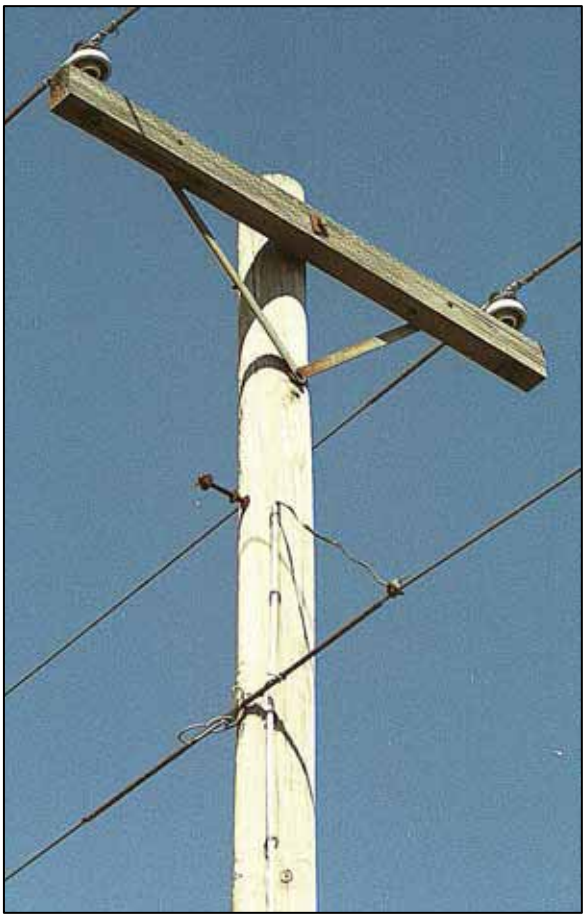


Figure 7 (Photo 05C3)
Broken spool & neutral hanging down,
Circuit 205, Rd. 2400N, south of Oneida

Figure 8 (Photo 05C8)
Badly shell rotted pole and 2 hanging steel braces, Circuit 502, CH 4, west of Altona

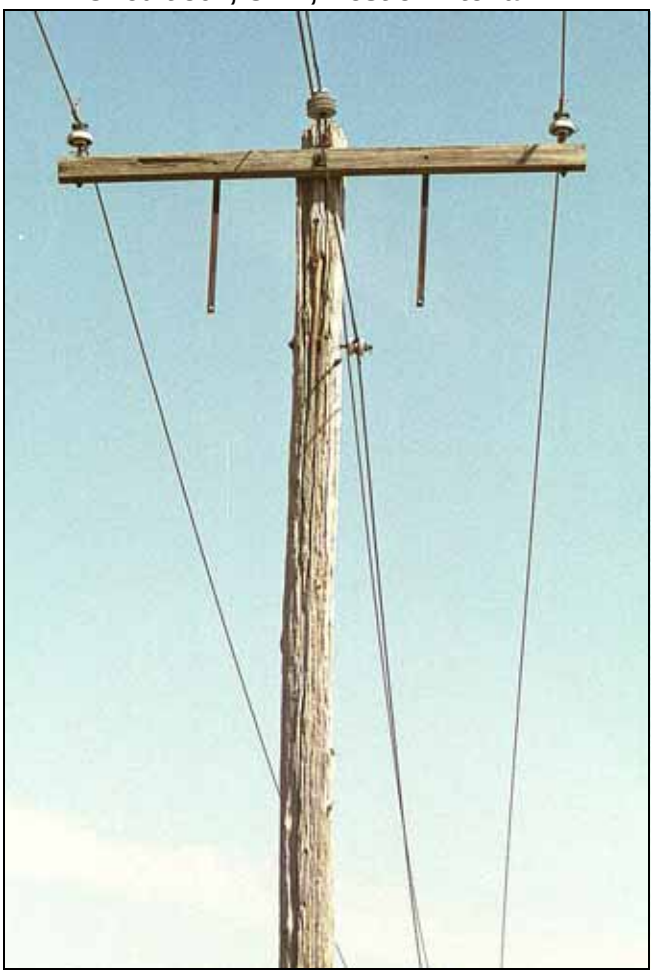
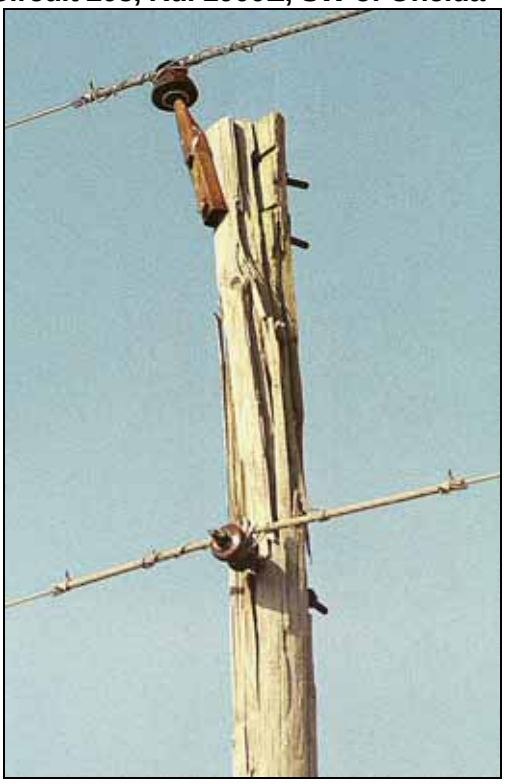


Figure 9 (Photo 05C11)
Burned pole top, Circuit 502, southeast of Wataga (road not labeled on map provided)

Kewanee Circuit 205 continues into AmerenIP's Galesburg Service Area, serving a rural area west and southwest of Oneida. Although AmerenIP did not initially provide circuit maps for the Galesburg portion of the circuit, those maps were provided promptly when requested by Staff. Staff inspected Galesburg Circuit 205 on April 5, 2005, and found conditions to be very similar to those described for the Kewanee portion of the circuit except that only one missing guy marker was noted in Galesburg territory. Tree trimming and animal guarding looked good. "Additional" lightning arresters were noted throughout the circuit. There were some mapping errors. Staff's field notes are summarized in Attachment "C", and two of the problems noted on Galesburg Circuit 205 are shown in Figures 10 & 11.

Figure 10 (Photo 05C13)
Split crossarm,
Circuit 205, Rd. 2600N, NW of Oneida

Figure 11 (Photo 05C16)
Lightning damaged pole top,
Circuit 205, Rd. 1000E, SW of Oneida



Because of the high number of potential reliability problems found in 2004 (including forty-one blown and/or disconnected lightning arresters), Staff performed a partial re-inspection of Galesburg Circuit 135 (Alpha, Woodhull, New Windsor, Rio, & rural) on April 5, 2005. This was one of AmerenIP's worst performing circuits in 2003. Several new poles, crossarms, and additional lightning arresters have been installed since the 2004 inspection, and about 70% of the problem locations re-inspected had been corrected as of 4/5/05. Staff's 2005 field notes for Galesburg Circuit 135 are summarized in Attachment "D". An additional structural problem noted this year is shown in Figure 12.

Figure 12 (Photo 05C20)
Badly lightning damaged crossarm,
Circuit 135, Road 150N, southeast of New Windsor

Bloomington Circuit 202 is a 12 kV circuit serving Danvers, Stanford, and rural areas near and between those communities. It was one of AmerenIP's worst performing SAIFI circuits in 2004, repeating in that category from 1999. Wind (61%) and public accidents (18%) were listed as the primary causes of customer interruptions in 2004. Staff inspected this circuit on April 12, 2005, and found many new poles scattered throughout the circuit, and some new lightning arresters. One disconnected and eight blown lightning arresters were noted. See Attachment "E" for a summary of Staff's field notes for this circuit. Figures 13 and 14 show two of the more significant problems noted during Staff's inspection.

Figure 13 (Photo 05D20)
Broken strand in 6A CW phase conductor, Circuit 202, S. of IL Rt. 9, west of Danvers

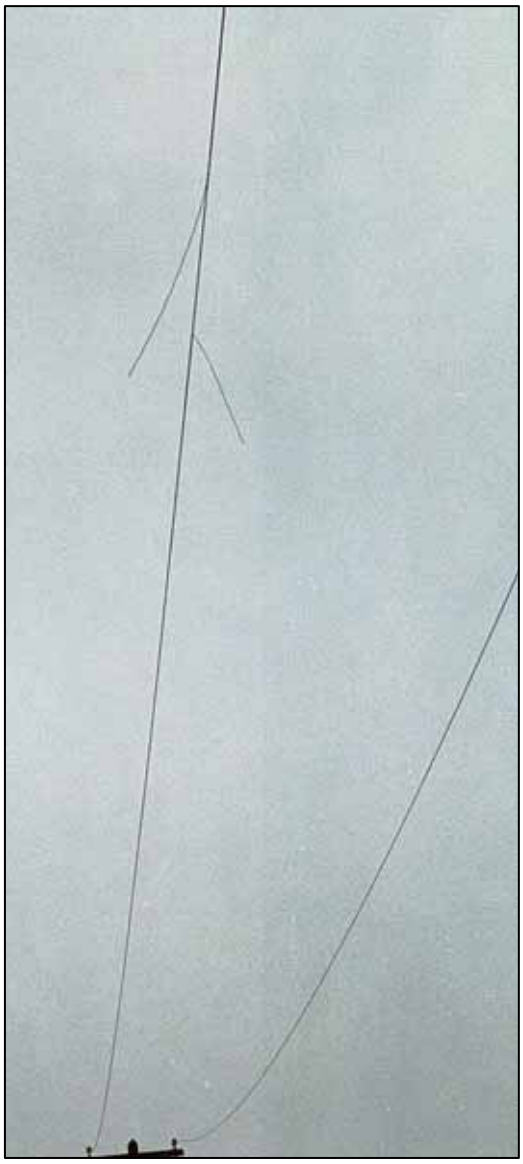


Figure 14 (Photo 05D21)
Lightning damaged crossarm & braces (both wood braces split/broken), Circuit 202, Road 150E, west of Stanford

Granite City Circuit 300 is a 4 kV circuit serving the communities of Venice, Brooklyn, and National City. It was a worst performing SAIFI and CAIFI circuit in 2004, with lightning (50%), public accidents (33%), and wind (17%) listed by AmerenIP as the primary causes of the customer interruptions. AmerenIP plans to do an assessment of the circuit to ensure adequate lightning protection. Staff inspected this circuit on April 13, 2005, finding some structural deterioration, but little evidence of lightning problems. There were several inaccessible areas. Staff noted one NESC structural strength violation involving single wood crossarms supporting a 3-phase crossing of a railroad in National City. Double crossarms are required in this situation. Following notification of this violation, AmerenIP prepared a work request to install double crossarms at this location and later reported that the work was completed on November 3, 2005. Staff's inspection field notes for Granite City Circuit 300 are summarized in Attachment "F". One of the structural deterioration problems is shown in Figure 15.

Figure 15 (Photo 05E9)
Deteriorated crossarm,
Circuit 300, Alley north of Adams St., Brooklyn

Granite City Circuit 290 is a 12 kV circuit serving portions of Madison and Granite City. It was one of AmerenIP's next-worst SAIFI circuits in 2004, with a SAIFI of 3.44 and a CAIFI of 3.67. Upon inspection of this circuit on April 13, 2005, Staff found several locations where trees were into or close to AmerenIP's primary and only a few other problems. Most of the transformers were protected with animal guards. Staff's field notes for this circuit are summarized in Attachment "G". There were several inaccessible areas on this circuit.

Belleville Circuit 166 was also one of AmerenIP's next-worst SAIFI circuits in 2004, with a SAIFI of 3.41 and a CAIFI of 3.71. It is a 12 kV circuit serving the southeast edge of Belleville, Rentchler, and a rural area southeast of Belleville. There are many inaccessible cross-country sections of the circuit and several underground areas. Staff noted many "additional" lightning arresters, several new poles, and several animal guards during its inspection of this circuit on April 13, 2005. A variety of problems were also noted, as summarized on Attachment "H". The communities and a few of the roads were not labeled on the circuit maps AmerenIP provided. See Figures 16 and 17 for two examples of structural problems noted on Belleville Circuit 166.

Figure 16 (Photo 05E13)
Badly split pole top,
Circuit 166, Keck Rd., east of Belleville

Figure 17 (Photo 05E15)
Bad pole top, with woodpecker holes,
Circuit 166, Funk School Rd., SE of Belleville

Belleville 12 kV Circuit 235 was a worst performing circuit in 2004, serving the southern two-thirds of New Athens. AmerenIP reported that wind (61%) and forestry (14%) were the leading causes of customer interruptions on this circuit in 2004. Numerous outages were due to storms. Staff inspected this circuit on April 14, 2005, noting that many animal guards have been installed throughout the circuit, but that there were also several tree conflicts. Only a few structural problems were noted. See Attachment "I" for a summary of Staff's field notes. Figures 18, 19, and 20 show some of the problems Staff observed on this circuit.

Figure 18 (Photo 05E19)
Oak tree into primary,
Circuit 235, Johnson St., New Athens

Figure 19 (Photo 05F7)
Broken (lightning damaged) pole,
Cir. 235, White Cabin Lodge Rd., New Athens

Figure 20 (Photo 05F2)
Pin oak tree into primary,
Cir. 235, Highland St., New Athens

Belleville Circuit 163 was a worst performing circuit in 2004, 2002, and 2000. It is a 12 kV circuit serving a rural area southeast of Belleville extending south to Freeburg. AmerenIP listed lightning (51%), overhead equipment problems (19%), wind (17%), and public accidents (11%) as the leading causes of customer interruptions on this circuit in 2004, reporting also that the circuit was affected by major storms in May and July 2004. Staff performed a partial re-inspection of this circuit on April 14, 2005, concentrating only on the main feeder portions of the circuit. (Staff performed complete circuit inspections in May 2002 and in April 2003). AmerenIP installed additional lightning protection on the circuit in 2004, which Staff noticed during the inspection. Several new poles, several new crossarms, and many animal guards were also noted. Staff noted only one problem, a tree conflict, on the portion of the circuit inspected in April 2005 (see Attachment "J").

Mt. Vernon 12 kV Circuit 107 serves a small central portion of the city of Mt. Vernon. It was a 2004 worst performing circuit, with animals (75%) and forestry (25%) listed as the causes for the customer interruptions. AmerenIP reported that work plans were implemented in the fall of 2004 to correct the animal problems and that "cycle-buster" tree trimming was completed in March 2005. Staff noted that there were no tree conflicts and that the circuit was well animal guarded when performing its inspection on April 18, 2005. See Attachment "K" for the only problem noted (a missing guy marker).

Sparta Circuit 915 is a 12 kV circuit serving a small northern portion of Chester and a rural area mostly north and northeast of Chester. This circuit was a worst performing circuit in 2004, repeating in that category from 1999. AmerenIP reported that animals (49%), lightning (25%), and "unknown" (25%) were the leading causes for customer interruptions in 2004. *While it seems unreasonable that the cause for 25% of the customer interruptions on a worst performing circuit was not identified, Staff understands that the "unknown cause" interruptions on this circuit stemmed from only one event affecting many customers.* During its circuit inspection on April 19, 2005, Staff noted that the circuit needs more animal guards in the rural areas, though many were present in the small portion of the circuit within the city of Chester. Many of the poles have been damaged by woodpeckers. There were no tree problems on the circuit, and several new poles and crossarms were noted. There were several inaccessible cross-country sections of the circuit. The city of Chester and several of the roads were not labeled or labeled incorrectly on the circuit maps AmerenIP provided. Attachment "L" is a summary of Staff's field notes for this circuit. Some of the problems noted are shown in Figures 21 through 26.

Figure 21 (Photo 05F18)
Badly shell rotted pole top,
Cir. 915, Garfield & alley N. of Lincoln, Chester

Figure 22 (Photo 05F20)
Badly shell rotted pole & split crossarm,
Circuit 915, north of Chester

Figure 23 (Photo 05F23)
Many woodpecker holes in pole top,
Circuit 915, Willy Gully Ln., NE of Chester

Figure 24 (Photo 05F25)
Several woodpecker holes in pole top
& woodpecker working on the pole,
Circuit 915, northeast of Chester

Figure 25 (Photo 05G2)
13 woodpecker holes in pole,
Cir. 915, Union School Rd., NE of Chester

Figure 26 (Photo 05G3)
Split pole top w/ 2 woodpecker holes,
Cir. 915, Union School Rd., NE of Chester

Hillsboro Circuit 807 is a 12 kV circuit serving the communities of Bunker Hill and Woodburn and rural areas around and south of those communities. It was one of AmerenIP's next-worst SAIFI circuits in 2004, with a SAIFI of 3.62 and a CAIFI of 3.93. When Staff inspected this circuit on April 20, 2005, it found some tree clearance problems, but few structural problems. Many new poles were noted, but more lightning arresters and more fuses on the lateral taps are needed. There were several inaccessible cross-country sections of the circuit. Some of the roads, as well as the communities of Bunker Hill and Woodburn, were not labeled on the circuit maps AmerenIP provided. There were also some mapping errors. See Attachment "M" for a summary of Staff's field inspection notes. Figures 27 through 30 show some of the problems Staff noted on this circuit.

Figure 27 (Photo 05G8)
Lightning damaged wood braces (one hanging down),
Circuit 807, Huette Road, southeast of Woodburn

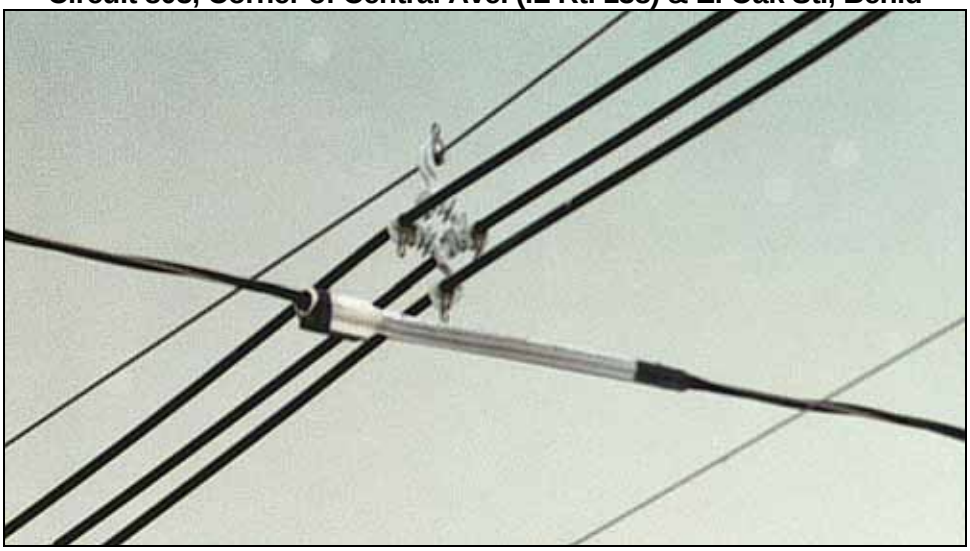
Figure 28 (Photo 05G9)
Two steel crossarm braces hanging down,
Circuit 807, Corner of Hickory & Elm Streets, Bunker Hill

Figure 29 (Photo 05G15)
Vines on overhead transformer,
Cir. 807, Ness School Rd., SE of Bunker Hill

Figure 30 (Photo 05G16)
Ash tree growing into primary,
Circuit 807, East St., Bunker Hill

On the way back from its inspection of Hillsboro Circuit 807 on April 20, 2005, Staff noticed an NESC violation in Benld involving inadequate vertical clearance of AmerenIP's 12 kV Hillsboro Circuit 803 over a street light secondary circuit. This inadequate clearance situation, at the corner of Central Avenue (IL Rt. 138) and E. Oak Street, Benld, is shown in Figure 31. The NESC requires a minimum clearance of two feet for this situation, instead of the 6" to 12" clearance existing at that time. Note that AmerenIP had placed line hose on the secondary at the crossing point under the 12 kV spacer cable circuit some time earlier, indicating that they were aware then of the clearance problem, but had not resolved it properly. Staff sent AmerenIP an email message describing this code clearance violation on June 13, 2005. AmerenIP reported on August 2, 2005, that it removed this span of street light circuit on July 19, 2005, feeding the street light from a different direction and resolving this NESC violation.

Figure 31 (Photo 05G19)
Inadequate clearance of 12 kV primary over a street light secondary (NESC violation), Circuit 803, Corner of Central Ave. (IL Rt. 138) & E. Oak St., Benld



AmerenIP's 12 kV Danville Circuit 212 was a worst performing circuit in 2004. It serves a southern part of Georgetown, Olivet, Vermilion Grove, and a large rural area mostly east of those communities. AmerenIP reported that wind (86%) and public accidents (10%) accounted for nearly all of this circuit's customer interruptions in 2004. The circuit was impacted by a major storm in July 2004. A cycle-buster trim was completed in March 2005. Staff inspected this circuit on April 27 & 28, 2005, noting very few tree trimming problems and that several new poles were scattered throughout the circuit and that animal guards were plentiful. Additional lightning arresters are needed in some of the rural areas. Some of the roads, as well as the communities of Georgetown, Olivet, and Vermilion Grove, were not labeled on the circuit maps AmerenIP provided. There were many mapping errors. See Attachment "N" for a summary of Staff's field inspection notes. One of the problems noted involved an NESC inadequate clearance violation, shown in Figure 32. Figures 33 through 39 show some of the other problems Staff noted on this circuit.

Figure 32 (Photo 05H2)
Primary approx. 1 ft. above skip-span pole (NESC violation), Circuit 212, Road 650N, ESE of Georgetown

Note: AmerenIP reported that it cut the top off the skip-span pole on July 1, 2005, resulting in a 6 ft. clearance from the primary to the remaining secondary and neutral. This location is now in compliance with the clearance requirements of the NESC.

Figure 33 (Photo 05H1)
Split pole top,
Cir. 212, Rd. 2130E, ESE of Georgetown

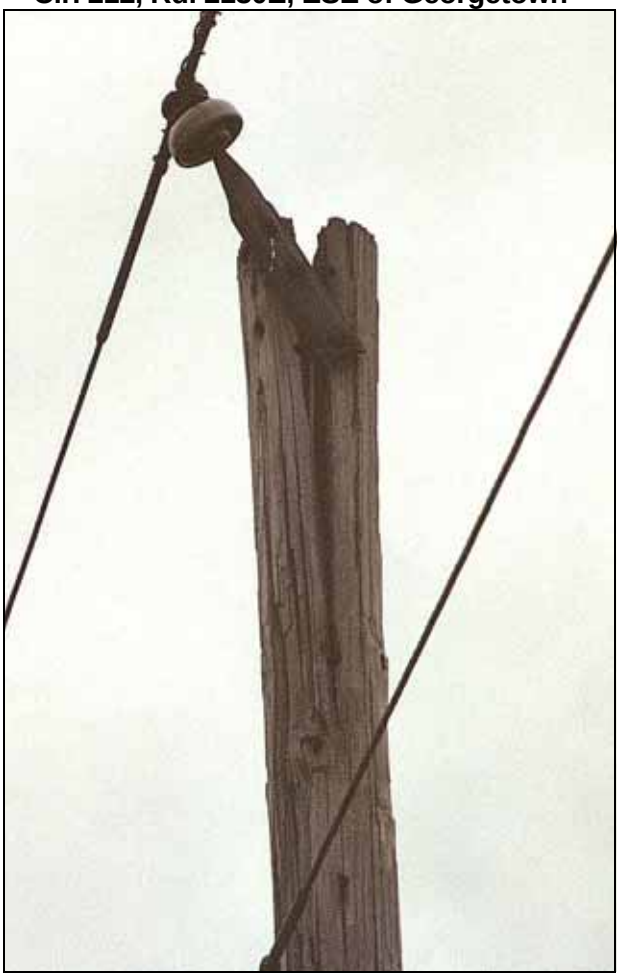


Figure 34 (Photo 05H9)
Burned pole & lightning damaged pole top,
Cir. 212, Rd. 2000E, SE of Olivet

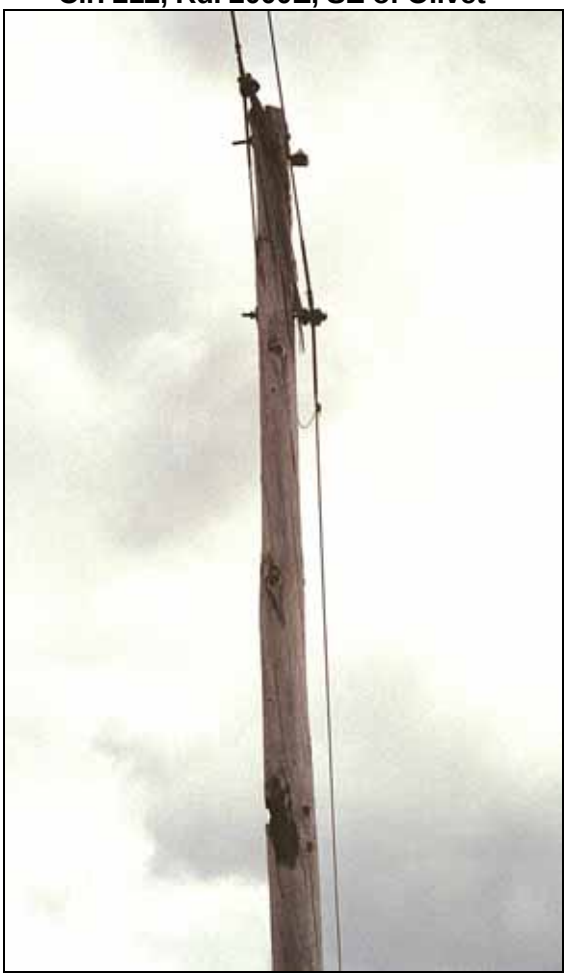


Figure35 (Photo 05H4)
Badly split crossarm,
Circuit 212, Hester Lane (CH 26), east of Vermilion Grove

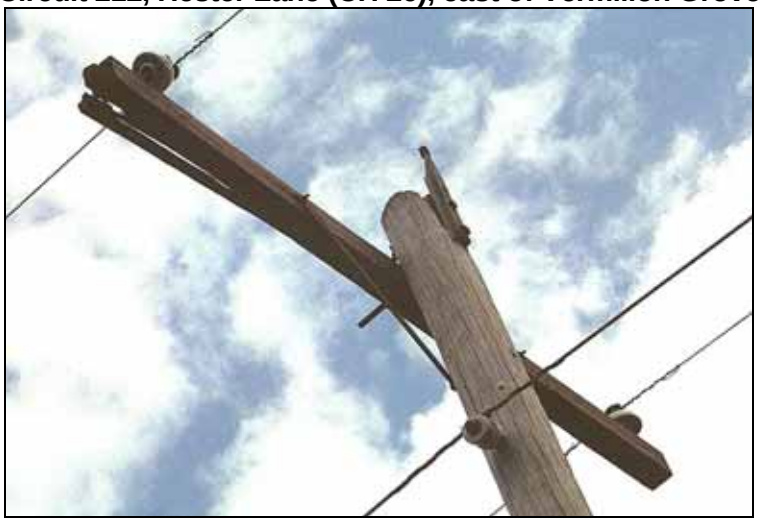


Figure 36 (Photo 05H7)
Badly split crossarm (saddle pinned),
Circuit 212, County Highway 26, east of Vermilion Grove

Figure 37 (Photo 05H11)
Broken crossarm (2nd arm may not be needed),
Circuit 212, west of Cedar St. in the alley north of Indiana Ave., Olivet

Figure 38 (Photo 05H12)
Broken 12 kV suspension insulator,
Cir. 212, Rd. 1500E & College St., Olivet

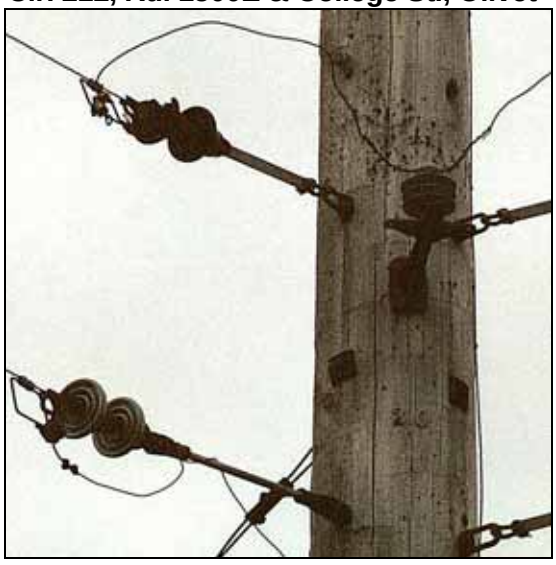
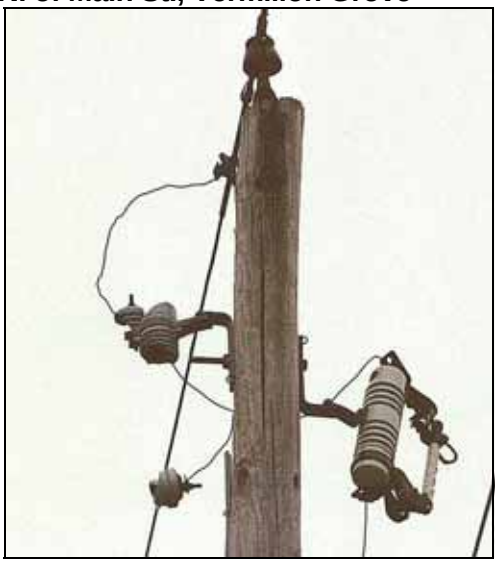


Figure 39 (Photo 05H13)
Broken lightning arrester,
Cir. 212, N. of Main St., Vermilion Grove



Danville Circuit 121 is a 4 kV circuit serving a small west-central part of the City of Danville. It was one of AmerenIP's worst performing SAIFI circuits in 2004 and a worst performing CAIDI circuit in 2001. Wind (76%) and public accidents (24%) were listed as the causes of the customer interruptions in 2004. AmerenIP reported that this circuit experienced a large storm in July 2005, with some of the outages during this storm affecting the entire circuit. Staff inspected this circuit on April 28, 2005, and a summary of Staff's field notes are included in Attachment "O". While not many problems were noted, it was a significant number of problems considering the small size of this circuit. One problem noted involved an NESC inadequate clearance violation, shown in Figure 40.

Figure 40 (Photo 05H21)
12 kV primary approx. 6" above 4 kV primary on a skip-span pole (NESC clearance violation) and a deteriorated 4 kV crossarm, Circuit 121, Gilbert & English Sts., Danville

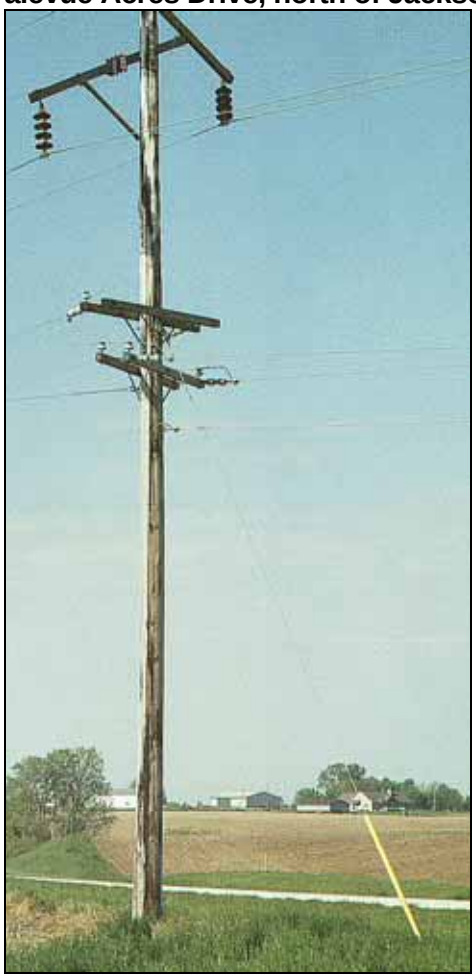
Note: AmerenIP reported that it installed a taller pole with new crossarms supporting both the 12 kV and 4 kV circuits at this location on September 30, 2005. This location is now in compliance with the clearance requirements of the NESC.

Jacksonville Circuit 331 was a worst performing SAIFI circuit in both 2004 and 1999. It is a 12 kV circuit serving a northeast portion of Jacksonville and a large rural area north and east of Jacksonville. AmerenIP reported that the leading causes for the customer interruptions on this circuit in 2004 were wind (65%) and "unknown" (25%). *While it seems unreasonable, as stated earlier, that the cause for 25% of the customer interruptions on a worst performing circuit was not identified, Staff understands that the "unknown cause" interruptions on this circuit stemmed from only two events affecting many customers.* AmerenIP reported that two major storms (May and November) were predominant factors contributing to a majority of the interruptions. Staff noted scattered tree conflicts when inspecting this circuit on May 3, 4, & 5, 2005, but most were not too bad. Most of the transformers have animal guards, and there are several new poles and crossarms scattered throughout the circuit. More lightning arresters are needed in some of the rural areas. There were several inaccessible areas, and several of the circuit maps provided contained mapping errors. Staff noted three NESC violations, all involving the lack of strain insulators in downguys as required by the code. Staff's field notes are summarized on Attachment "P". Figures 41 through 45 are photos of some of the problems noted on this circuit.

Figure 41 (Photo 05J10)
Primary burning tops of pine trees, Cir. 331, N. of Strawn Crossing Rd., northeast of Jacksonville

Figure 42 (Photo 05J16) **Figure 43 (Photo 05J17)**

69 kV (Fig. 42) & 12 kV (Fig. 43) downguys passing between 12 kV phase conductors without required strain insulators in the downguys (NESC violations), Circuit 331 (69 kV Strs. 16 & 18), Rt. 78 south of Valevue Acres Drive, north of Jacksonville

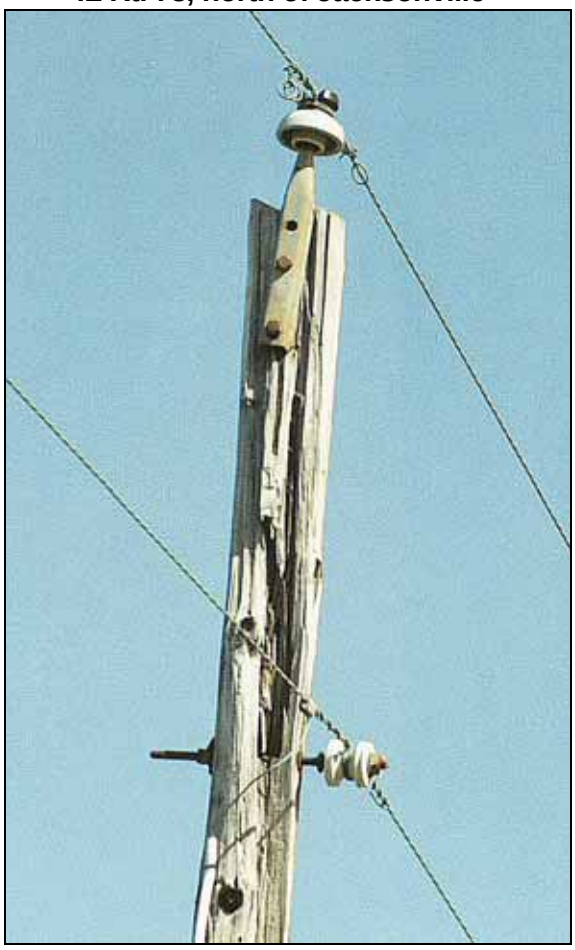


Note: AmerenIP reported that it installed strain insulators in these downguys (shown in Figures 42 & 43) as required by the code, as well as at 69 kV Structure 17 (the other

similar violation), on July 5, 2005. All three locations are now in compliance with the requirements of the NESC.

Figure 44 (Photo 05J14)
4 woodpecker holes in 69 kV Str. 16 (above Circuit 331 crossarm), Woodland Lakes Rd., N. of Jacksonville

Figure 45 (Photo 05J19)
Lightning damaged pole top, Circuit 331, IL Rt. 78, north of Jacksonville

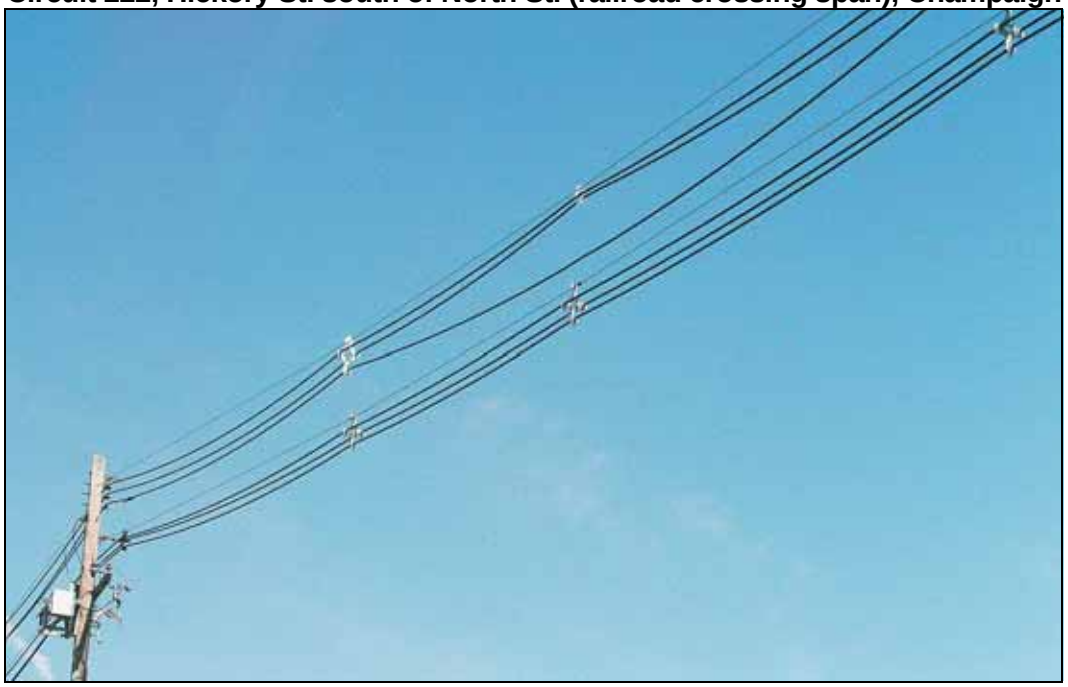


Decatur 12 kV Circuit 143 was another worst performing AmerenIP circuit in 2004. It serves a small eastern part of Decatur and a rural area east of Decatur. AmerenIP reported that the leading causes for the customer interruptions on this circuit in 2004 were animals (37%), wind (27%), and ice (24%). AmerenIP performed cycle-buster tree trimming and replaced 30 poles on this circuit in early 2005. Many additional pole replacements and pole reinforcements were planned to be completed later in 2005. AmerenIP's reported plan did not mention anything to address the animal problems in 2004, but Staff noted during its circuit inspection on May 11, 2005, that most of the transformers have animal guards. There were no major tree conflicts. More lightning arresters are needed in the rural areas, and more tap fusing should improve reliability. There were several inaccessible and underground areas on this circuit. Several of the

maps provided contained mapping errors. See Attachment "Q" for a summary of Staff's inspection field notes for Decatur Circuit 143.

Upon completion of its inspection of AmerenIP's Circuit 502 in the Champaign area on March 9, 2005, Staff spot-checked two other locations in Champaign to verify that AmerenIP has satisfactorily resolved NESC inadequate clearance violations Staff discovered during its inspections in 2004. One of these locations was at the intersection of Mattis & Bradley Avenues, where there had been an inadequate 12 kV spacer cable clearance over a traffic signal mast arm. AmerenIP has added a new pole for primary circuit support at that location, and the resulting clearance now meets the NESC requirements. The second location was on Hickory Street south of North Street, where three broken spacers had allowed the bottom conductor of 12 kV spacer cable Circuit 222 to sag into a lower 12 kV circuit. AmerenIP has replaced the broken spacers in the involved span at this location, resolving the clearance problem noted in 2004. In the adjacent span to the north (a railroad crossing span), however, Staff discovered an additional broken spacer has allowed the bottom conductor of spacer cable Circuit 222 to sag close to the lower circuit on the same pole line. A similar situation also exists on Hickory Street just north of Columbia Avenue. See Attachment "R" for a summary of Staff's spot-check field notes for these and other locations. Figure 46 shows the railroad crossing span with the broken spacer in Circuit 222.

Figure 46 (Photo 05A21)
Low-hanging 12 kV spacer cable conductor due to broken spacer, Circuit 222, Hickory St. south of North St. (railroad crossing span), Champaign



Staff has found many broken spacers on AmerenIP spacer cable circuits in recent years, and the problem seems to be particularly bad in the Champaign/Urbana service area (perhaps because AmerenIP has more spacer cable there than in most areas). Each broken spacer causes additional loading on adjacent spacers, sometimes resulting in a propagation of spacer failures along the span. Anytime one or more spacers fail, the design clearances and strengths of the line (as well as aesthetics) are compromised. As already discussed, violations of the National Electrical Safety Code sometimes result. Staff is aware that primary spacer cable has not been a standard for new construction at AmerenIP for several years and that the spacers in existing spacer cable circuits, unless recently replaced, are becoming old. Based on the increasing number of failures observed, many of the aged spacers are apparently in poor condition. Staff urges AmerenIP to investigate this escalating problem and to implement an appropriate action plan to address it.

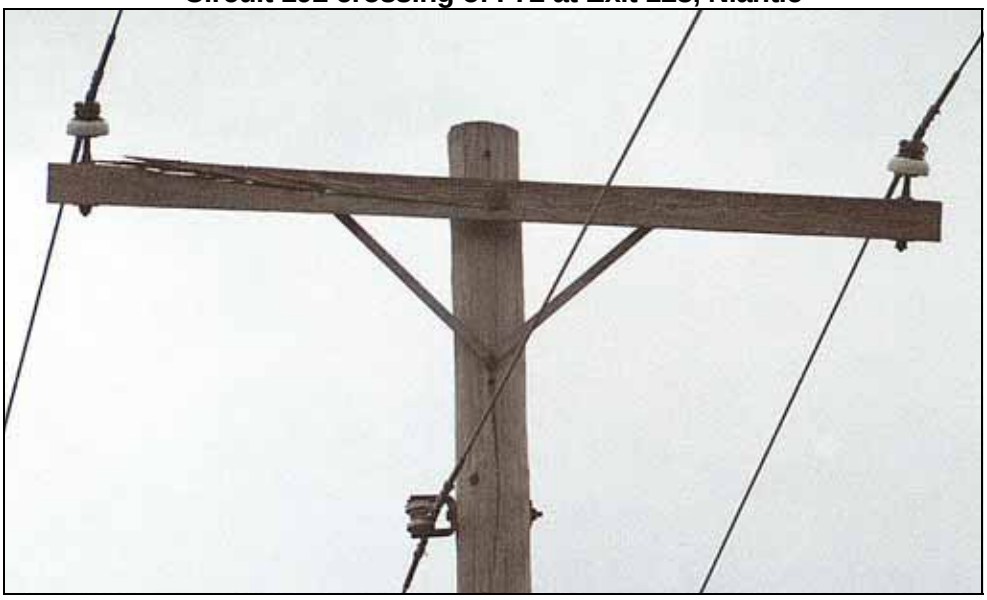
Staff noted and advised AmerenIP of five NESC structural strength violations involving single crossarms supporting AmerenIP circuit crossings of interstate highways (on one or both sides of the interstate highway) this year.

> *(Double crossarms have been required for all railroad crossings in Illinois where wooden crossarms and pin-type insulators are used since General Order 10 was adopted on April 2, 1914. Limited access highways were specifically added to this requirement in the 1984 edition of the NESC, which was adopted by 83 Illinois Administrative Code 305 on July 25, 1985.)*

Because of the number of these NESC interstate highway crossing violations found in 2005 and the larger number discovered in AmerenIP's LaSalle service area in 2004, Staff asked AmerenIP, on June 23, 2005, to field check all crossings of interstate highways by AmerenIP electric circuits throughout AmerenIP's service territory to determine the degree to which the NESC requirement had been met. AmerenIP completed this investigation and on July 28, 2005, advised Staff of the results and its plan and schedule to resolve the violations found. In summary, AmerenIP reported 110 interstate crossing locations that are out of compliance with the current NESC. It has agreed to remedy 79 of those locations by June 2006. Its reasons for not addressing the other 31 locations are, in most cases, based on the dates of the installation of those crossings preceding the specific code requirement. *Staff does not believe that AmerenIP's limited action plan is in the best interest of public safety, though it may meet the minimal statutory requirements in Illinois due to the "grandfathering" approach allowed by the safety code.*

Two particularly troubling AmerenIP single-crossarm interstate highway crossing structures that Staff discovered are shown in Figures 47 and 48.

Figure 47 (Photo 05E5)
Badly split single crossarm (NESC structural strength violation), Circuit 192 crossing of I-72 at Exit 128, Niantic



Note: AmerenIP reported that it replaced the single crossarms on both sides of this interstate crossing with new double crossarms on April 15, 2005. This location is now in compliance with the requirements of the NESC.

Figure 48 (Photo 05-IP663)
Badly split wood brace on single crossarm (NESC structural strength violation), Circuit 190 crossing of I-72 at Exit 122, Illiopolis

Note: AmerenIP reported that it replaced the broken wood brace on September 15, 2005, and replaced the single crossarms on both sides of this interstate crossing with new double crossarms on September 21, 2005 (south side) and September 22, 2005 (north side). This location is now in compliance with the requirements of the NESC.

It is difficult to summarize Staff's field inspections of AmerenIP circuits in a general way because of the circuit-to-circuit variability of conditions observed. Recent improvements on more than half of the circuits inspected were easily identified because of the scattering of new poles and crossarms throughout the circuit. Tree trimming was well done on most of the circuits inspected, but Staff noted significant exceptions on four of the circuits. Animal guarding was well done in most cases. One of the more common problems Staff noted was the need for more lightning arresters in the rural areas of several of the circuits inspected. Lightning arresters were plentiful and well placed, however, on some of the circuits. **Staff discovered <u>fourteen</u> violations of the National Electrical Safety Code on AmerenIP electric circuits this year**, which is far more than it found at any other utility in 2005 and far more than noted at any utility in Illinois during each of the preceding five years. The discovery of some of these violations involving interstate highway crossings led to AmerenIP's identification, at Staff's initiative, of more than one hundred similar violations company-wide, as discussed earlier in this report. All of these safety code violations pose a risk to service reliability and public safety. While AmerenIP has been responsive to the code violations discovered by Staff's inspections, it needs to take a more proactive role in finding and addressing these problems throughout its electric system and in preventing the occurrence of them in the first place.

AmerenIP should investigate all of the problems noted during Staff's circuit inspections, as well as those discovered by its own inspections, and take appropriate remedial actions addressing any problems on those circuits, whether or not noted by Staff, which can significantly affect service reliability or public safety.

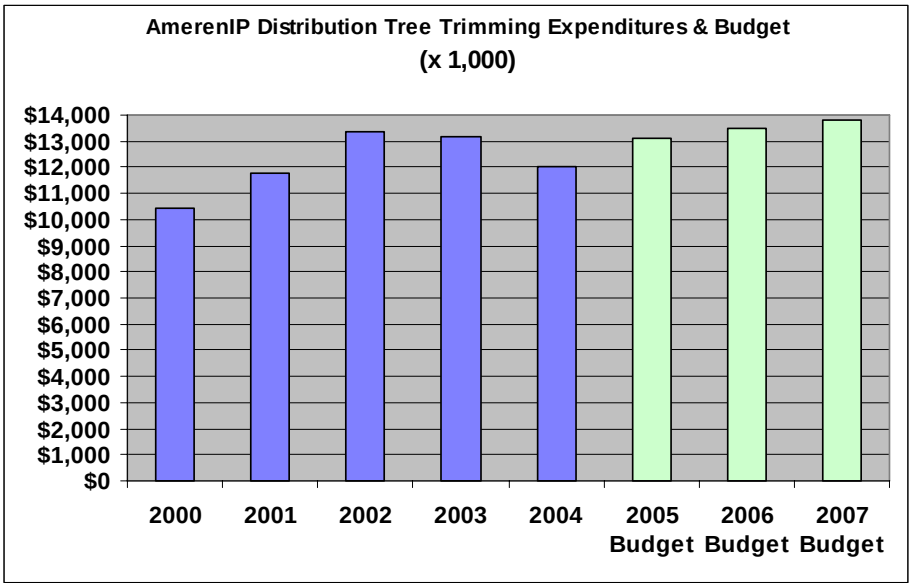
Staff also inspected tree conditions in the cities of Jacksonville and South Jacksonville on May 3, 2005 (in addition to Jacksonville Circuit 331 on May 3-5, 2005), and in Decatur on May 10 & June 20, 2005 (in addition to Decatur Circuit 143 on May 11, 2005). Ameren personnel accompanied Staff on each of the dates in May. Details of these inspections, including photographs of tree conflicts found and Staff's resulting conclusions about AmerenIP's tree trimming program in Jacksonville, South Jacksonville, and Decatur are provided in Attachment "S" to this report.

In summary, Staff's field inspections of tree conditions in Jacksonville and Decatur revealed noticeable improvement from a year ago, but there were still too many tree conflicts in both cities. While tree trimming was well done on most of the other circuits inspected, Staff noted significant exceptions on four of the circuits. Based on the evidence found during inspections performed in AmerenIP's service territory in 2005, Staff has no reason to believe that Ameren has applied the resources necessary to adequately recover from its deficient tree trimming program noted during Staff's inspections of a year ago. As recently as three years ago, Illinois Power had a very good tree trimming program. The program has deteriorated since then, and though it has improved during the past year in Jacksonville and Decatur, it is not back to where it needs to be.

Notice in Figure 49 that AmerenIP's reported distribution tree trimming expenditures have declined in each of the past two years. AmerenIP under-spent its reported distribution tree trimming budget for 2004 by $1,255,365 (more than 9.4%). While the budgeted amount for

2005 is significantly (nearly 8.9%) more than AmerenIP spent on distribution tree trimming in 2004, it is actually slightly less than the amount budgeted for 2004. The amounts budgeted for 2006 and 2007 are, at best, only inflationary increases. Staff is concerned that AmerenIP's reported tree trimming budget may not be sufficient to allow the needed improvement in its tree trimming program. Staff does not believe the Ameren merger has helped.

Figure 49



NESC Rule 218(A)(1) and its associated note state the following:

> "Trees that may interfere with ungrounded supply conductors should be trimmed or removed.
>
> *NOTE:* Normal tree growth, the combined movement of trees and conductors under adverse weather conditions, voltage, and sagging of conductors at elevated temperatures are among the factors to be considered in determining the extent of trimming required."

While Staff has noted improvement during the past year, AmerenIP still has a significant amount of work to do to achieve *and maintain* a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 in Jacksonville, Decatur, and in some of the other circuits Staff inspected this year (as noted). Staff can only suspect that there are other parts of AmerenIP's service territory that require similar tree trimming improvements. To be in compliance with NESC Rule 218, AmerenIP needs to assure that all trees near its lines throughout its service territory are trimmed such that there are no tree contacts with its energized primary conductors before it returns to trim them again.

8. Trends in AmerenIP's Reliability Performance

Figure 50 shows a comparison of the company-wide SAIFI values reported by the Illinois utilities for years 2000 through 2004. AmerenIP's company-wide SAIFI performance has worsened in each of the past two years. Its overall SAIFI performance was exactly in the middle of the nine-utility group in 2004.

Figure 50

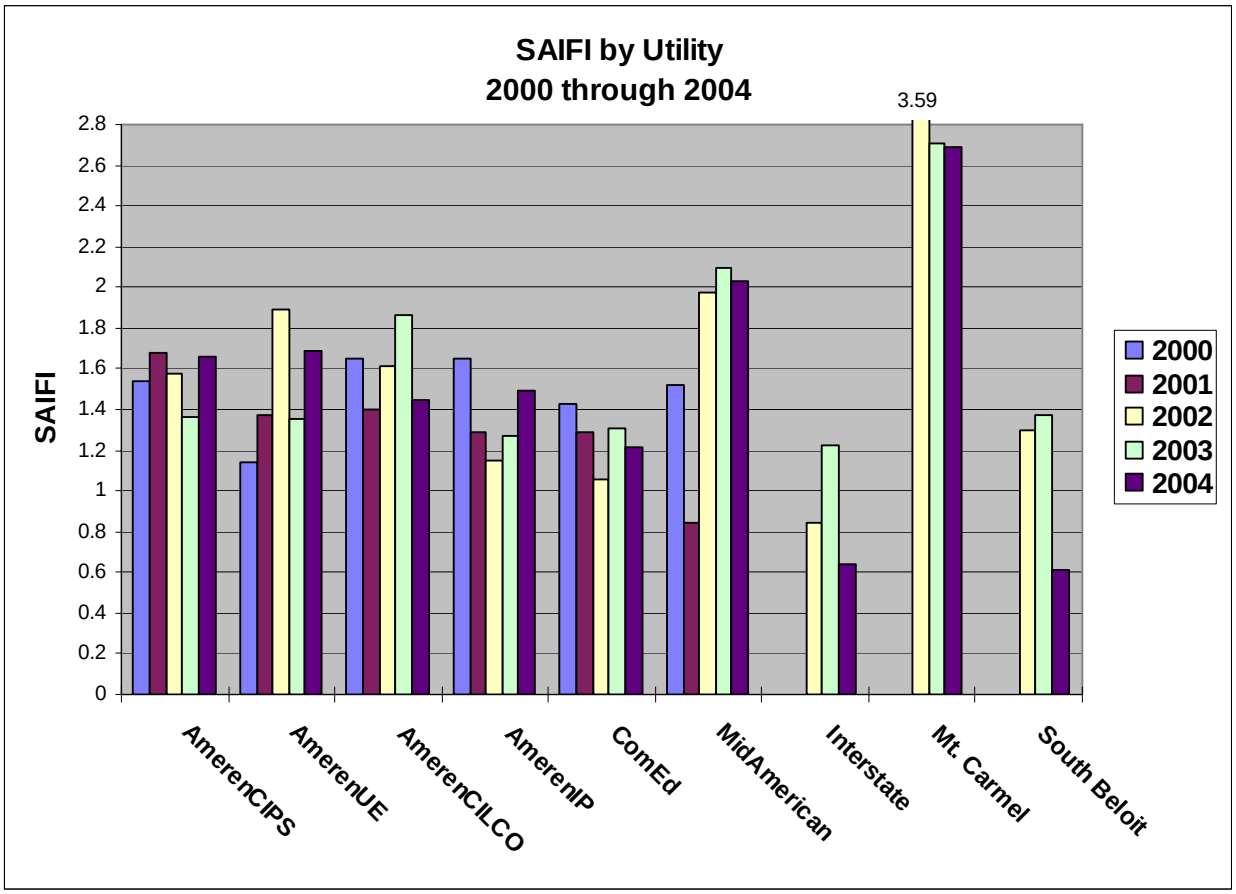


Figure 51 shows AmerenIP's company-wide SAIFI indices over the past ten years. Though somewhat erratic over the ten-year period, AmerenIP's reported overall SAIFI showed a generally worsening trend before 1999, has been significantly better since 1998, but has worsened again the past two years. AmerenIP's reported 2004 company-wide SAIFI performance worsened by 17% from year 2003, and is nearly 30% worse than in 2002.

Figure 51

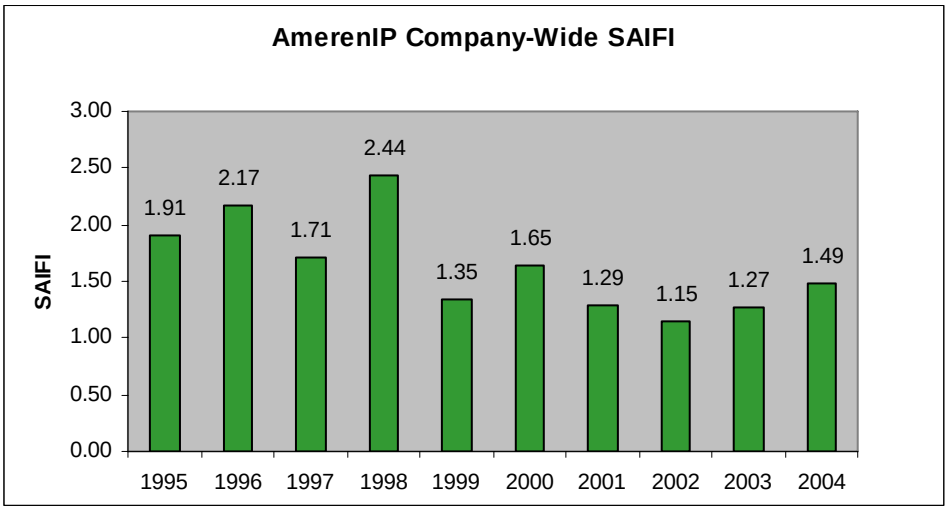


Figure 52 shows a comparison of SAIFI values for each company's single worst performing circuit as reported by the Illinois utilities for years 2000 through 2004. AmerenIP's reported worst-circuit SAIFI performance for 2004 is slightly worse than average among the other utilities, with three utilities performing worse in this category.

Figure 52

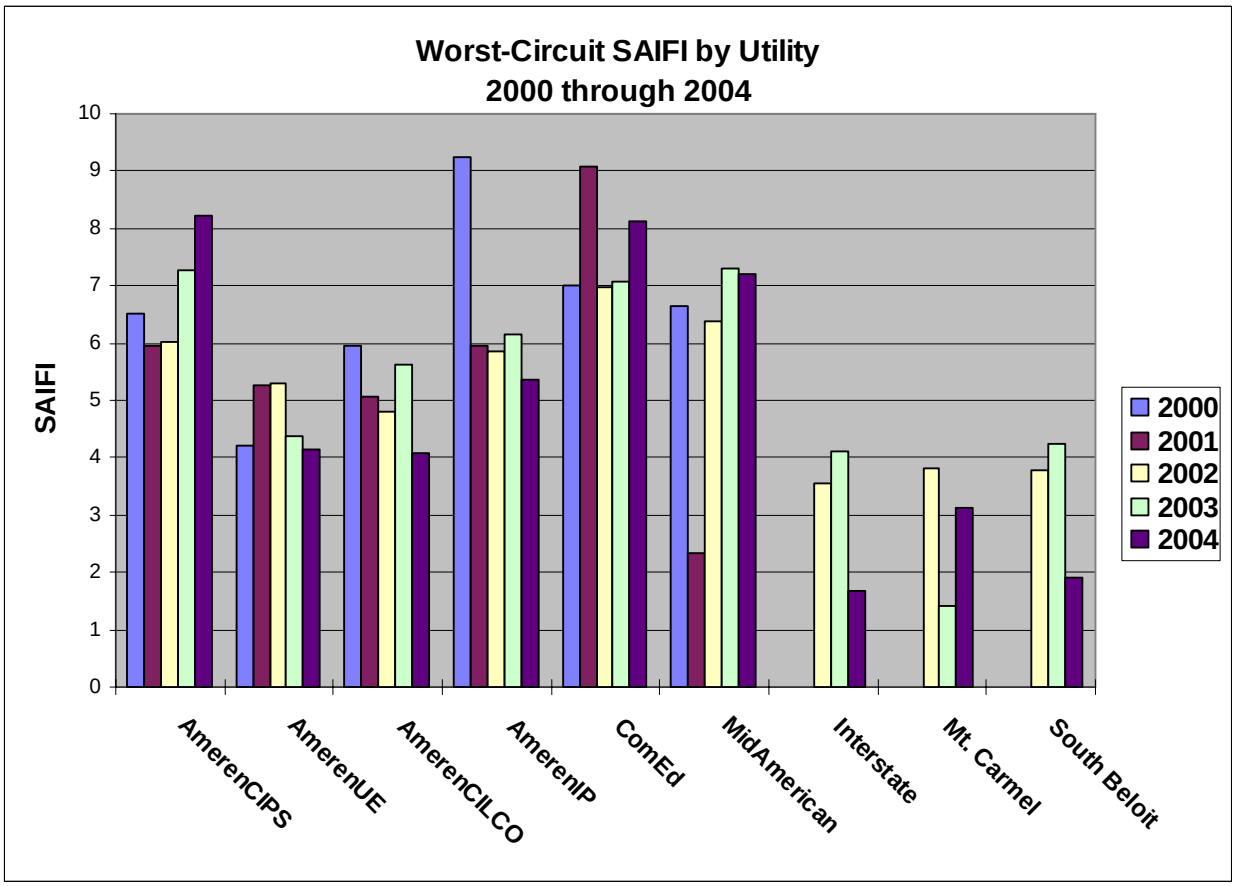


Figure 53 shows the SAIFI index of AmerenIP's single worst performing circuit as reported in each of the last ten years. For this statistic, the ten-year trend is not clear, although each of the most recent four years has been significantly better than any of the six preceding years. AmerenIP's worst SAIFI circuit in 2004 was 13% better than its worst SAIFI circuit in 2003.

Figure 53

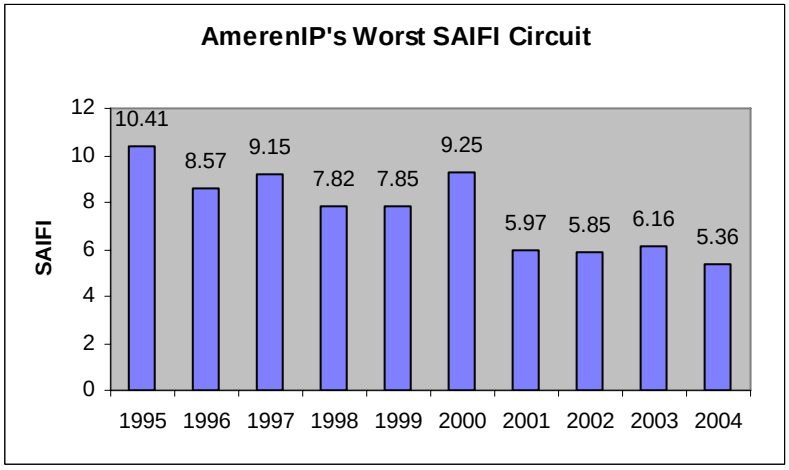


Figure 54 shows a comparison of company-wide CAIDI values reported by the Illinois utilities for years 2000 through 2004. At 268 minutes, AmerenIP's reported 2004 company-wide CAIDI performance worsened significantly from year 2003, with only AmerenUE (278 minutes) reporting a worse CAIDI statistic than AmerenIP for 2004.

Figure 54

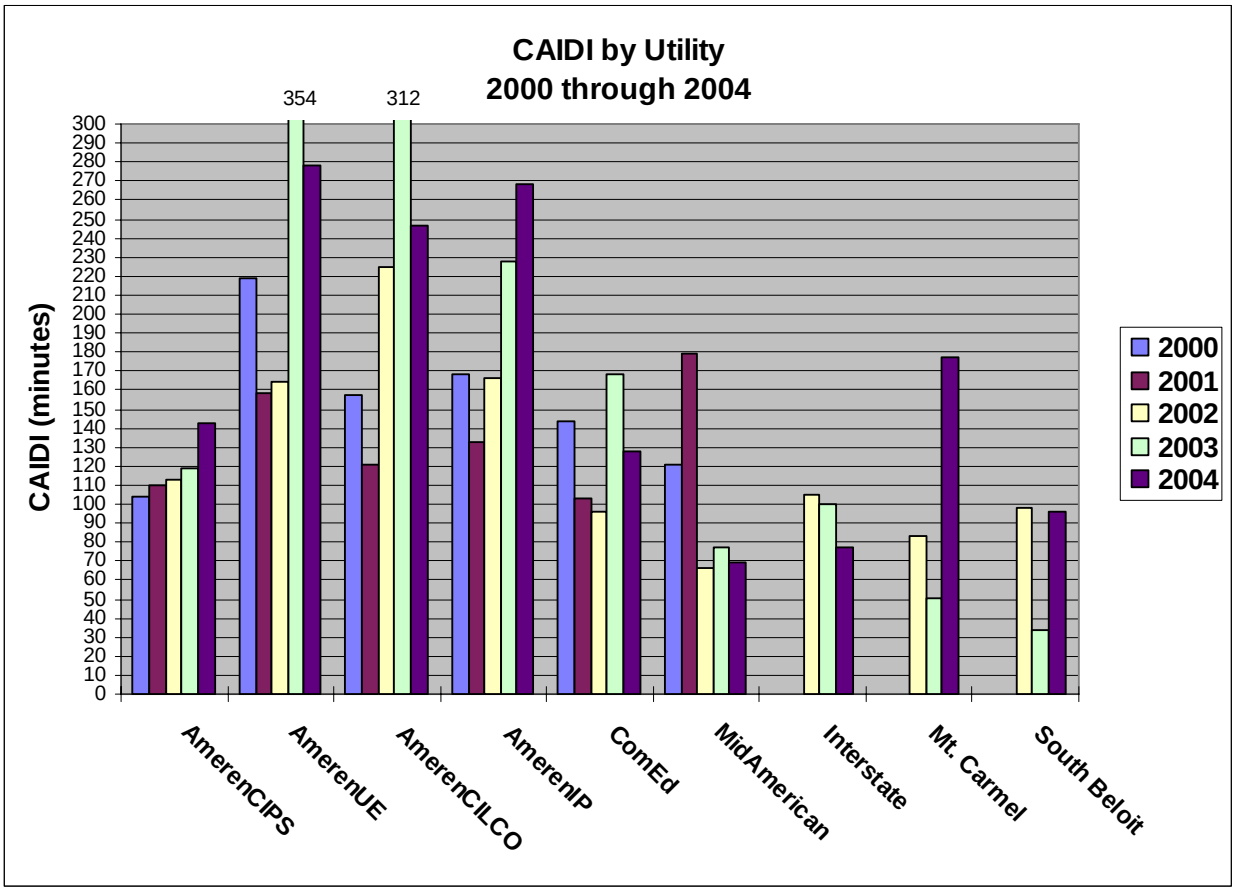


Figure 55

Figure 55 shows AmerenIP's company-wide CAIDI statistics over the past ten years. AmerenIP's reported overall CAIDI showed a generally worsening trend before improving greatly in 1999. The trend has been worsening again since 2001. AmerenIP's reported overall CAIDI for 2004 is 17.5% worse than it reported for year 2003 and more than double what it reported for year 2001.

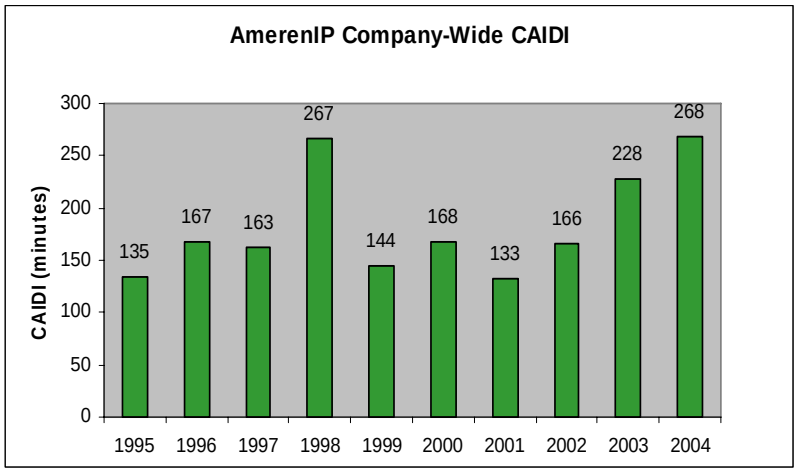


Figure 56 shows a comparison of CAIDI values for each company's single worst performing circuit as reported by the Illinois utilities for years 2000 through 2004. AmerenIP's reported worst-circuit CAIDI performance for 2004 (3011 minutes) is much worse than its worst-circuit CAIDI in 2003 (2275 minutes) and is the worst of all nine reporting utilities for 2004. All of the Ameren companies were significantly worse than any non-Ameren Illinois utility in this category in 2004.

Figure 56

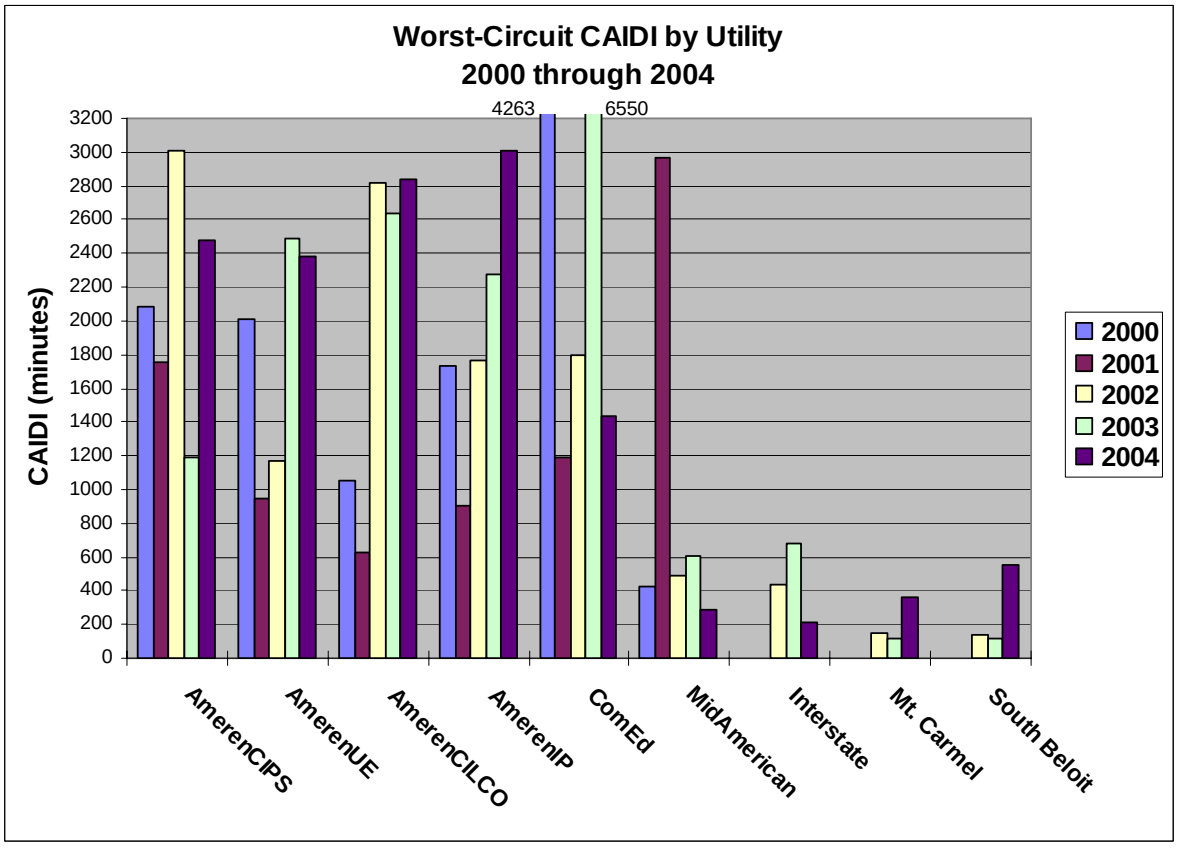


Figure 57 shows the CAIDI index of AmerenIP's single worst performing circuit in each of the last ten years. Similar to its trend for its company-wide CAIDI discussed above, AmerenIP's reported worst-circuit CAIDI showed a generally worsening trend before improving greatly in 1999. The trend has been worsening again since 2001. AmerenIP's reported worst-circuit CAIDI for 2004 is 32.4% worse than it reported for year 2003 and 3.3 times what it reported for year 2001.

Figure 57

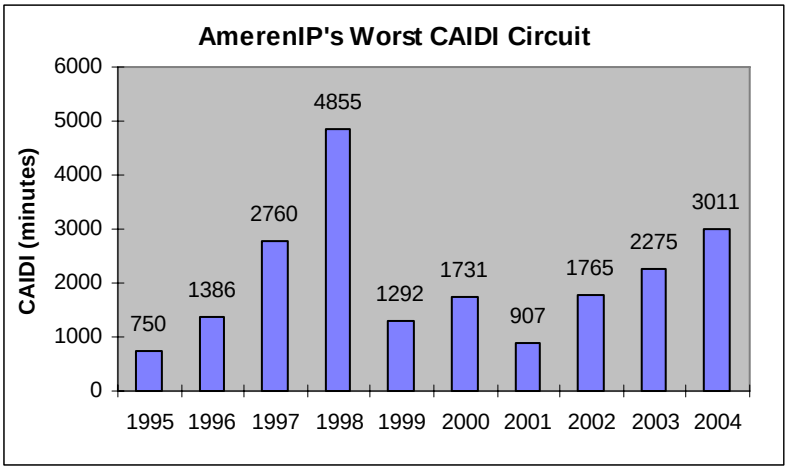


Table 5 shows the number and percentage of AmerenIP customers who experienced no service interruptions or less than four service interruptions for each of years 2000 through 2004. This information is also presented graphically in Figure 58. Note that the trends for both of these groups of AmerenIP customers were improving annually until 2003. The trends have been declining since 2002, which is consistent with AmerenIP's trend for company-wide SAIFI discussed earlier.

Table 5
AmerenIP Customers with No Interruptions or Less Than Four Interruptions

Year	Total Customers	Customers with No interruptions		Customers with < 4 interruptions	
2000	588,288	196,680	33.43%	505,194	85.88%
2001	589,568	228,055	38.68%	540,960	91.76%
2002	592,741	245,633	41.44%	552,333	93.18%
2003	596,892	234,320	39.26%	544,887	91.29%
2004	600,585	204,181	34.00%	532,373	88.64%

Figure 58

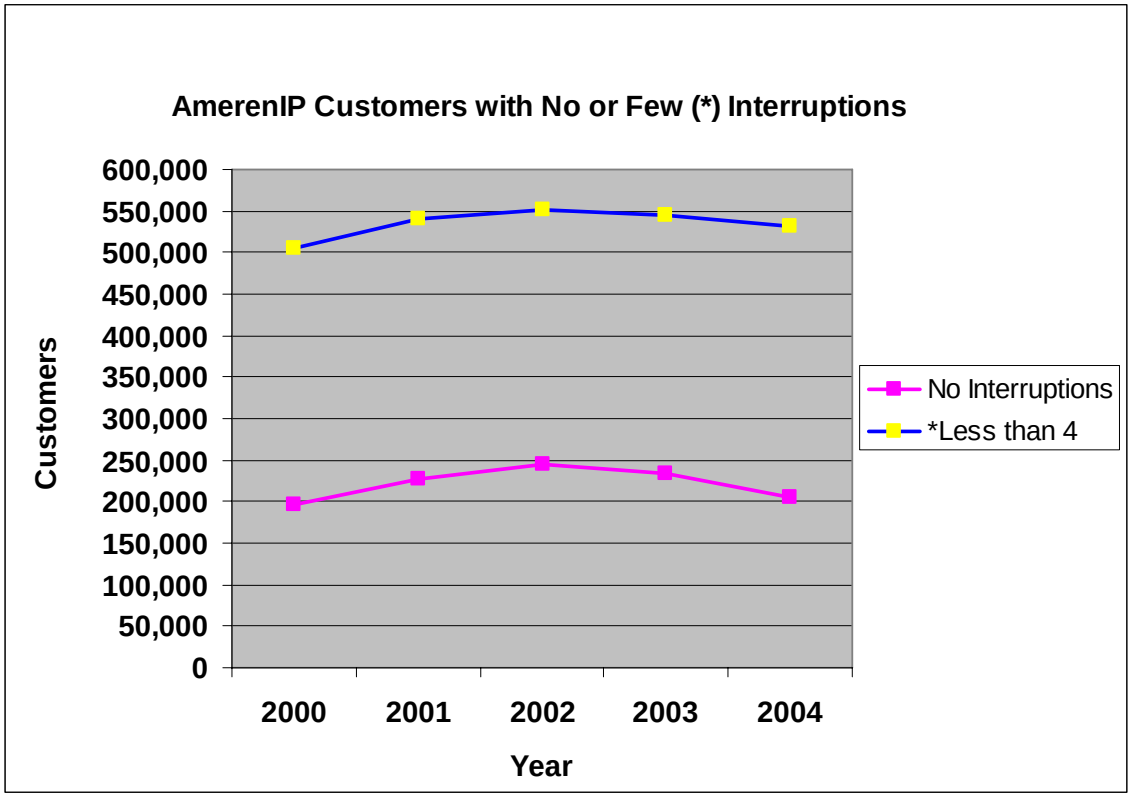


Table 6 shows the number and percentage of AmerenIP customers who experienced more than six and more than ten service interruptions for each of years 2000 through 2004. This information is also presented graphically in Figures 59 and 60. Note that the numbers of AmerenIP customers in both of these categories improved dramatically in 2001 from the prior year, and 2002 was even better. The trend has reversed since 2002, however, in both categories. A total of 7,713 AmerenIP customers (1.28% of AmerenIP's customers) experienced more than six service interruptions in 2004, up from 4,473 customers in 2003. A total of 110 AmerenIP customers experienced more than ten service interruptions in 2004, up from 99 customers in 2003. The general direction of these trends is consistent with AmerenIP's trend for company-wide SAIFI discussed earlier.

Table 6
AmerenIP Customers with More Than Six and More Than Ten Interruptions

Year	Total Customers	Customers with > 6 interruptions		Customers with > 10 interruptions	
2000	588,288	12,093	2.06%	1,391	0.24%
2001	589,568	3,632	0.62%	65	0.01%
2002	592,741	2,731	0.46%	41	0.01%
2003	596,892	4,473	0.75%	99	0.02%
2004	600,585	7,713	1.28%	110	0.02%

Figure 59

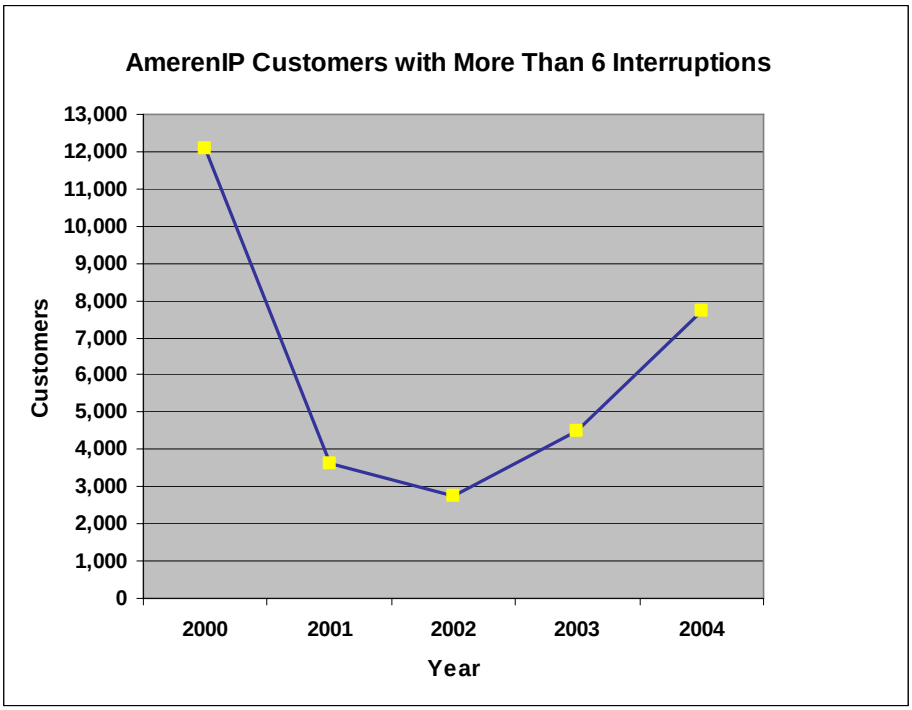
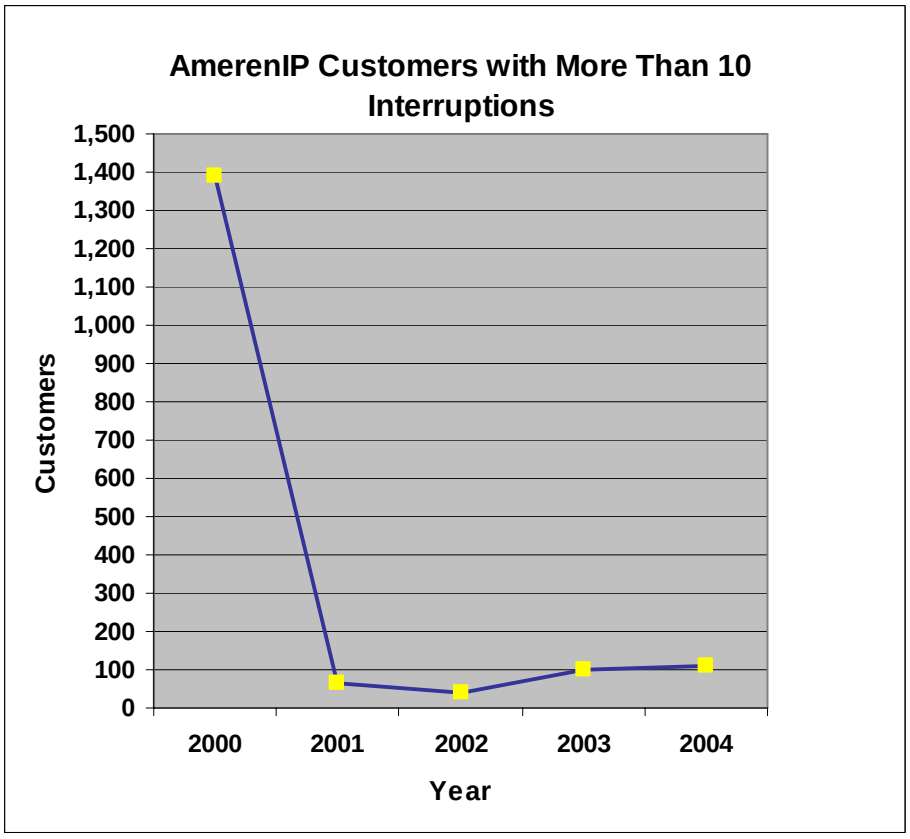


Figure 60



Overall, the statistics provided in AmerenIP's 2004 reliability report indicate a worsening of the overall frequency of interruptions compared to similar data reported for the past two years and a very significant worsening in the duration of interruptions when compared to similar data provided for the past three years. AmerenIP reported that it experienced many weather events during 2004, which significantly impacted the reliability indices.

9. AmerenIP's Plan to Maintain or Improve Reliability

Specific plans described in AmerenIP's 2004 annual reliability report to maintain or improve reliability include the following:

- AmerenIP reported that it remains on a four-year tree trimming cycle and that AmerenIP is in the process of being integrated into the Vegetation Management Program used "successfully" at other Ameren companies. Work plans and system changes are being aligned to focus on improving system reliability. Several details of the program were provided.

  Staff found that AmerenIP's tree trimming program has shown improvement during the past year, but AmerenIP still has a significant amount of work to do to achieve and maintain a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 throughout its service territory. See Section 7 and Attachment "S" for details. AmerenIP's reported tree trimming budget may not be sufficient to allow for the needed improvement to its tree trimming program.

- AmerenIP reported that it will transition from the system currently used to manage electric outages, the "Trouble Outage System" (TOS), to Ameren's "Outage Analysis System" (OAS) in the fourth quarter of 2005. *(It is not clear to Staff whether or not this is a reliability improvement).*

- Several substation breakers will be replaced due to condition, including one 34 kV breaker and six 69 kV breakers. Three poor condition bulk supply transformers will be replaced to improve reliability and regulate voltage. An automatic throw over (ATO) switch will be added to a substation to reduce the duration of customer interruptions.

- Ongoing system planning studies are performed to help insure the integrity of the transmission and distribution system. These efforts include preparing electric load forecasts, monitoring facility loadings, evaluating the system impacts of proposed generating units, and identifying required system reinforcements and expansions.

- AmerenIP completed the sixth full year of a distribution circuit proactive protective device coordination program in 2004. Under the program, approximately 10% of the Company's distribution circuits have been analyzed each year. The future direction and scope of the proactive device coordination is being re-evaluated,

including incorporating AmerenIP into Ameren's fuse tap program. *(It is not clear to Staff whether or not this is a reliability improvement).*

- All new single-phase distribution transformers are purchased with pre-installed animal and lightning protection. AmerenIP will continue to evaluate and retrofit systems and substations with animal protection as appropriate.

- A Circuit Patrol Team has been formed to develop and implement a standard schedule to patrol sub-transmission and distribution circuits to improve and maintain circuit performance. This team will provide a policy and schedule for regular circuit inspections that will be implemented Ameren-wide when it completes its work in 2005. Until an Ameren-wide change is initiated, AmerenIP will continue to routinely perform field inspections on all distribution circuits. Currently, each year AmerenIP patrols 25% of the distribution circuits to ensure deficiencies are identified, prioritized, and appropriately addressed.

  ***Note:* Ameren advised Staff on October 17, 2005, that it does not plan to complete the necessary training and roll out its new circuit inspection program until January 1, 2007.**

- AmerenIP is continuing its effort to inspect and assess sub-transmission poles for any reliability concerns. This program focuses on transmission and sub-transmission circuits and additional areas recognized to have greater exposure or poorer performance, such as older facilities, circuits that were classified as worst performing, and circuits that have had problematic outages due to pole failures. Mitigation efforts may include C-trussing poles, pole re-treatment, and pole replacements.

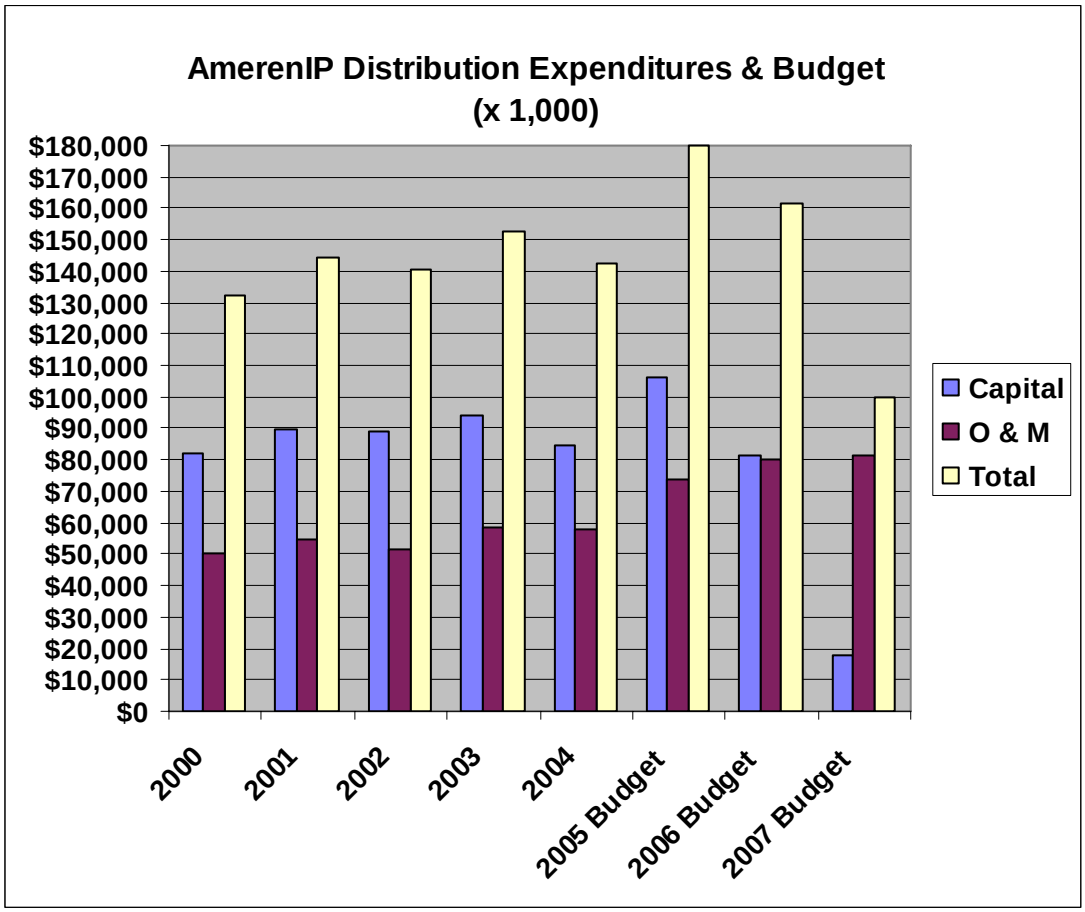
AmerenIP's reported annual expenditures for its distribution system, distribution tree trimming, and transmission system for years 2000 through 2004, and the 2005 through 2007 budgets for these categories, are provided in Table 7. This information for the distribution system and for distribution tree trimming is also represented graphically in Figures 61 and 62. (See the note about this data, which follows Table 7).

Table 7

Year	Distribution (x1,000)			Dist. Tree Trimming (x1,000)	Transmission (x1,000)		
	Capital	O & M	Total		Capital	O & M	Total
2000	$81,747	$50,311	$132,058	$10,441	$6,095	$18,077	$24,172
2001	$89,952	$54,549	$144,501	$11,757	$11,585	$17,155	$28,740
2002	$89,083	$51,542	$140,625	$13,371	$8,687	$16,235	$24,922
2003	$94,100	$58,656	$152,756	$13,151	$5,399	$10,190	$15,589
2004	$84,816	$57,613	$142,429	$12,030	$4,655	$4,644	$9,299
2005 Budget	$106,185	$74,008	$180,193	$13,100	$15,360	$7,317	$22,677
2006 Budget	$81,399	$79,956	$161,355	$13,493	$44,705	$7,392	$52,097
2007 Budget	$18,016	$81,555	$99,571	$13,797	$15,615	$7,540	$23,155

Note: Beginning with the 2005 data in Table 7 (except for tree trimming) and in Figure 61, Ameren included certain loadings not previously included in data reported by Illinois Power Company. The data for 2005 and later years are not comparable, therefore, to the data for earlier years.

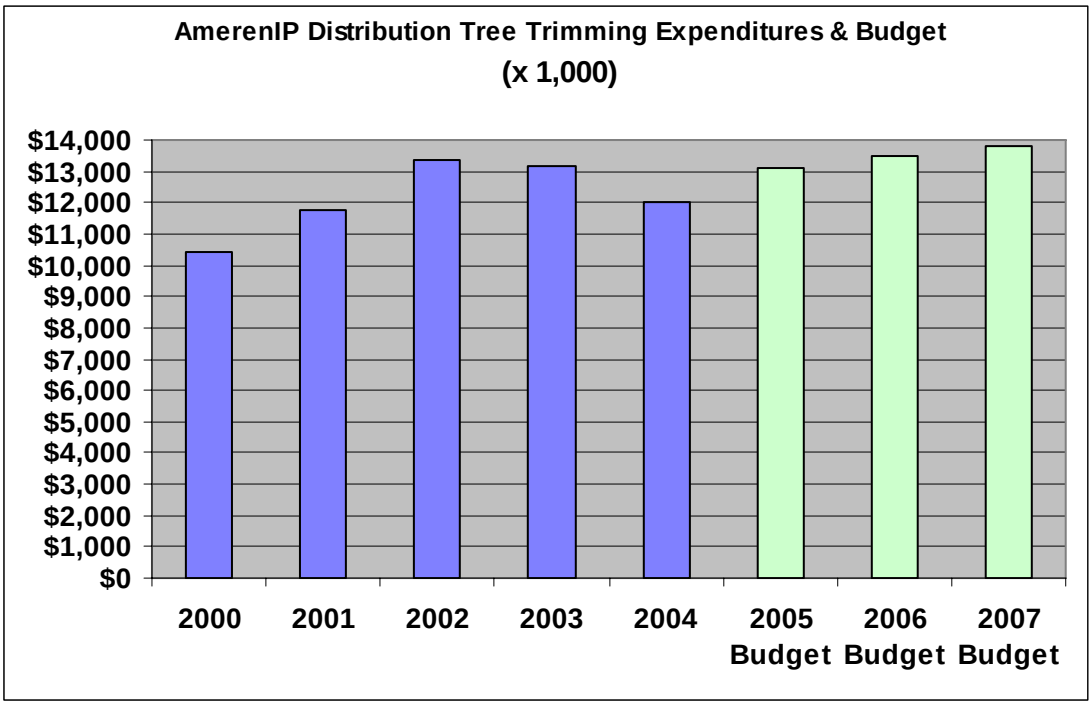
Figure 61



As shown in Figure 62, AmerenIP's reported distribution tree trimming expenditures have declined in each of the past two years. AmerenIP under-spent its reported distribution tree trimming budget for 2004 by $1,255,365 (more than 9.4%). While the budgeted amount for 2005 is significantly (nearly 8.9%) more than AmerenIP spent on distribution tree trimming in 2004, it is actually slightly less than the amount budgeted for 2004. The amounts budgeted for 2006 and 2007 are, at best, only inflationary increases.

As discussed in Section 7 of this report and in more detail in Attachment "S", Staff noted some improvement in AmerenIP's tree trimming during the past year, but AmerenIP still has a significant amount of work to do to achieve *and maintain* a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 in some parts of its service territory. To be in compliance with NESC Rule 218, AmerenIP needs to assure that all trees near its lines throughout its service territory are trimmed such that there are no tree contacts with its energized primary conductors until it returns to trim them again. Staff is concerned that AmerenIP's reported tree trimming budget may not be sufficient to allow the needed improvement in its tree trimming program.

Figure 62



AmerenIP provided a description of actions taken or planned for each of the worst performing circuits listed in its 2004 reliability report. Each of the problems described in the outage history for each circuit was addressed in some way by the described actions taken or planned. AmerenIP's reported actions taken or planned for each circuit seemed reasonable, but it should also address any additional problems revealed on each of the circuits during Staff's circuit inspections.

10. Potential Reliability Problems and Risks

In its last four reliability reports, Illinois Power/AmerenIP reported that weather was the leading cause of customer interruptions (32.78% in 2001, 34.22% in 2002, 32.84% in 2003, and 46.04% in 2004). While AmerenIP cannot control the weather, it can control many of the effects of weather on service reliability.

AmerenIP listed forestry as the cause for only 2.63% of the customer interruptions (5.41% of the events) in 2004. Many of the interruptions attributed to weather may have also been tree related, however. Staff's field inspections in Jacksonville, Decatur, and on several circuits during 2005 revealed improvement in AmerenIP's tree trimming program during the past year, but that AmerenIP still has a significant amount of work to do to achieve *and maintain* a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 throughout its service territory. To be in compliance with NESC Rule 218 and to minimize the risk of tree-related interruptions, AmerenIP needs to assure that all trees near its lines throughout its service territory are trimmed such that there are no tree contacts with its energized primary conductors until it returns to trim them again.

One of the more common problems Staff noted during its circuit inspections was the need for more lightning arresters in the rural areas of several of the circuits. The lack of adequate lightning protection on rural circuits will cause many of the interruptions attributed to weather.

Staff discovered fourteen violations of the National Electrical Safety Code on AmerenIP electric circuits this year, which is far more than it found at any other utility in 2005 and far more than noted at any utility in Illinois during each of the preceding five years. The discovery of some of these violations involving interstate highway crossings led to AmerenIP's identification, at Staff's initiative, of more than one hundred similar violations company-wide, as discussed earlier in this report. All of these safety code violations pose a risk to service reliability and public safety. While AmerenIP has been responsive to the code violations discovered by Staff's inspections, it needs to take a more proactive role in finding and addressing these problems throughout its electric system and in preventing the occurrence of them in the first place.

AmerenIP should investigate all of the problems noted during Staff's circuit inspections, as well as those discovered by its own inspections, and take appropriate remedial actions addressing any problems on those circuits, whether or not noted by Staff, which can significantly affect service reliability or public safety.

11. Review of AmerenIP's Implementation Plan for the Previous Reporting Period.

AmerenIP reported that the remedial actions to be done in 2004 for each of its year 2003 worst performing circuits, as described in its 2003 reliability report, were accomplished, with some of the described work on Kewanee Circuit 204 being completed in early 2005. Upon

reviewing the status of these planned actions for each circuit, Staff finds the corrective actions taken to be reasonable.

12. Summary of Recommendations

- First, AmerenIP should take a more proactive role in finding and addressing National Electric Safety Code (NESC) violations throughout its electric system and in preventing such occurrences in the first place. Staff discovered fourteen NESC violations on AmerenIP circuits this year, all of which pose a risk to service reliability and public safety. While AmerenIP has been responsive in resolving these issues when discovered by Staff, it should not rely on Staff to cause the code violations to be addressed.

- Second, AmerenIP should do whatever is necessary to achieve ***and maintain*** a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 throughout its service territory. AmerenIP needs to assure that all trees near its lines throughout its service territory are trimmed such that there are no tree contacts with its energized primary conductors before it returns to trim them again. Staff's field inspections of tree conditions in Jacksonville and Decatur revealed noticeable improvement in those cities since last year's inspections, but there were still too many tree conflicts in both cities. Because of the continuing problem in Jacksonville and Decatur, AmerenIP should give priority to tree trimming program recovery in these two areas.

- Third, AmerenIP should investigate all of the problems noted during Staff's inspections of worst performing and other circuits (see Attachments "A" through "R") and take appropriate remedial actions addressing any problems on those circuits, whether or not noted by Staff, which can significantly affect service reliability or public safety.

- Fourth, AmerenIP should follow through with its action plans listed in its Supplemental Report (as a minimum) in an effort to prevent those customers who experienced interruptions in excess of the service reliability targets in each of the last three or more years from exceeding the targets again.

- Fifth, AmerenIP should investigate its apparently escalating problem with broken spacers on its spacer cable circuits and implement an appropriate action plan to address it.

- Sixth, AmerenIP should perform field inspections of all circuits on a regular basis and correct the problems found which can significantly affect reliability or public safety.

- Seventh, AmerenIP should continue its efforts to improve its circuit maps and make them more user friendly.

Attachment "A"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**3/7 & 3/9/05**
Circuit:	**Champaign 502 (Mayview, rural St. Joseph, Glover, & rural Ogden)**	**Inspector:**	**J. D. Spencer, w/ Bev Hall (Ameren)**

Gen. Notes: This circuit was a next-worst performing 12 kV circuit in 2004, serving Mayview & rural, rural St. Joseph, Glover & rural, & rural Ogden. Tree trimming looked good, and animal guards and "additional" lightning arresters were noted throughout the circuit. Several new poles and crossarms were noted. There were many mapping errors. ***Four NESC violations are noted.***

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 64	Two shell rotted poles		1st pole west and 1st pole east of transformer Sta. 12218 on Rd. 2000N
1	Broken neutral spool		1st pole south of Sta. 12216 on CH 22
2	Badly shell rotted pole & spool bolt nearly out of pole	A1, A2	1st pole north of Rd. 1900N on Rd. 2600E
4	Broken spool		4th pole west of Sta. 12213 on Rd. 1900N
5	Missing guy marker		Corner pole at Rd. 1850N & Rd. 1800E
6	1 broken downguy & 1 downguy not needed		Stub pole at Rd. 1900N & Rd. 2500E
7	Four shell rotted poles		1st, 3rd, 5th, & 8th poles west of Rd. 2600E on Rd. 1900N
11	Large woodpecker hole in pole, split pole top, & missing guy marker	A6	1st pole north of Sta. 11985 on Rd. 2275E
13	Pole damaged at bottom (tagged for replacement)		1st pole east of Rd. 2500E on Rd. 1800N
13	Badly shell rotted pole		3rd pole east of Rd. 2500E on Rd. 1800N
14	Lightning damaged crossarm	A5	6 spans north of Rd. 1800N on Rd. 2600E
15	Blown lightning arrester		1st pole east of tap to Sta. 12206 on Rd. 1800N
15	Steel brace hanging down		2nd pole east of Sta. 19847 on Rd. 1800N
19	Split, lightning damaged crossarm (not too bad)		1st pole south of UG tap to Sta. 24035 on CH 24
24	Broken spool		5th pole south of Sta. 10895 on Rd. 2800E
26	Split, lightning damaged crossarm	A19	4 spans east of Rd. 1800E on Rd. 1700N (not labeled on map)

Attachment "A"

Map No.	Item Description	Photo(s)	Location
27	**Code clearance violation (NESC 234.B.1):** Single-phase primary approx. 4 ft. horizontally from 69kV lattice tower legs (primary covered with rubber hose material taped on for a distance of approx. 30 ft.)	A17, A18	In tap to Sta. 16190 on Rd. 1700 N (beside 69kV tower # 202)
28	Hanging steel brace		1 span east of Rd. 2000E on Rd. 1700N
31	**Code clearance violation (NESC 234.B.1&2):** 3-phase primary approx. 2 ft. horizontally & 3' to 4' vertically from a skip-span pole no longer in use for the 3-phase circuit.	A7, A8	In 2nd span east of CH 12 on Rd. 1700N, St. Joseph (?--not labeled on map)
31	Broken spacer in adjacent circuit		Just north of Rd. 1700N on CH 12, St. Joseph(?)
32	Broken spool & badly bent spool bolt		1st pole north of Sta. 21535 on Rd. 2275E
35	Badly shell rotted pole	A3, A4	7th pole west of Sta. 12183 on Rd. 1700N
35	Two shell rotted poles		1st & 4th poles west of Sta. 12183 on Rd. 1700N
35	Blown lightning arrester		6th pole south of Sta. 12204 on Rd. 2600E
37	Blown & disconnected lightning arrester		At Sta. 12197 on CH 22 (not labeled on map)
37	Blown lightning arrester		On riser feeding tap to Sta. 24666 just north of Rd. 1700N
37	Old (minor) lightning damage to four poles		North of Rd. 1700N in tap feeding Sta. 12199
37	Blown lightning arrester		At Sta. 12199 north of Rd. 1700N
38	Blown lightning arrester		At Sta. 29616 on Rd. 1700N
39	**Code structural strength violation (NESC 261.D.4.c):** Single wood crossarm supporting a 3-phase crossing of I-74, on the north side of I-74 (the south side has a double crossarm)		Along Rd. 1900E at crossing of I-74
40	Large woodpecker hole at pole top		2nd pole north of Sta. 19214 on Rd. 2000E
42	Blown lightning arrester		North of I-74 on 4th pole south of Sta. 20361
45	Missing guy marker		1st pole north of Sta. 15518, west of Rd. 2500E
45	**Code structural strength violation (NESC 261.D.4.c):** Single wood crossarms supporting a 3-phase crossing of I-74, on both sides of I-74		Along Rd. 2500E at crossing of I-74

Attachment "A"

Map No.	Item Description	Photo(s)	Location
48	Blown lightning arrester (field side)		1st pole east of Rd. 1700E (Cottonwood Rd.) along south side of railroad
48	Blown lightning arrester (field side)		On Rd. 1700E (Cottonwood Rd.) at 1st pole south of tap to Sta. 22860
49	Burned pole top		6 spans west of Rd. 1800E along south side of railroad
50	Badly split crossarm	A12, A13	5th pole west of tap to Sta. 12278 along south side of railroad
51	Burned pole top		6th pole west of Sta. 11255 along south side of railroad
51	Two shell rotted poles		1st & 3rd poles east of Sta. 10163 on Rd. 1575N
52	Hanging steel brace		Along south side of railroad at 2nd pole east of tap feeding north along Rd. 2000E
53	Burned pole top		Along south side of railroad at approximately the 5th pole west of recloser Sta. 502-3 (west of Rd. 2075E)
53	Missing guy marker		On the north side of US Rt. 150 at Rd. 2075E
53	Badly damaged pole top & bad (split) crossarm	A9	Along south side of railroad 5 spans east of Rd. 2075E
54	Two broken downguys		Along south side of railroad at the 1st & 2nd poles west of the tap feeding north along Salt Fork
57	Two shell rotted poles		On Washington St.--2nd pole on each side of the tap to Sta. 12284
57	Shell rotted pole		1 span north of Washington St. on Rd. 1800E
57	Several shell rotted poles		On Rd. 1800E between Washington St. & Rd. 1525N
57	Shell rotted pole		2 spans south of Rd. 1525N on Rd. 1800E
59	Badly split pole top	A10, A11	Last pole at south end of circuit on Rd. 2075E
61	Badly shell rotted pole		On Rd. 1800E at tap to Sta. 12290
62	Blown lightning arrester (field side)		1st pole north of Sta. 12247 on Rd. 1900E
62	Badly split crossarm	A14, A15, A16	3rd pole north of Sta. 12247 on Rd. 1900E

Attachment "B"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/4/05**
Circuit:	**Kewanee 205 (Rural Altona, Oneida, & rural)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**

Gen. Notes: This circuit was a worst performing 12 kV circuit in 2004, serving rural Altona, Oneida, & rural areas mostly south of Oneida. Tree trimming looked very good and animal guards and "additional" lightning arresters were noted throughout the circuit. Several new poles and crossarms were also noted. There were several mapping errors. Roads were not labeled on the last three maps of the circuit. The town of Oneida was not labeled on the maps provided. Many guy markers were missing, as noted, far more than on most AmerenIP circuits inspected. Maps were not initially provided for Galesburg Circuit 205, which is a continuation of this circuit.

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 38	Badly shell rotted pole & 2 hanging steel braces	C8	5th pole east of tap to Sta. 34843 on CH 4 (Rd. 2750N)
1	2 missing guy markers		On CH 4 (Rd. 2750N) at tap to Sta. 34680
1	Missing guy marker		On CH 4 (Rd. 2750N) at 1st pole west of tap to Sta. 34680
2	Split pole top, pin leaning, & 2 missing guy markers		NW corner of intersection of CH 4 (Rd. 2750N) & Rd. 1240E
2	2 missing guy markers		SW corner of intersection of CH 4 (Rd. 2750N) & Rd. 1240E
2	Missing guy marker		1 span west of Rd. 1240E on CH 4 (Rd. 2750N)
2	Missing guy marker		Approximately 5 spans west of Rd. 1240E on CH 4 (Rd. 2750N)
2	Missing guy marker		At Sta. 33056 on Rd. 1240E
2	Shell rotted pole, split pole top		3 spans south of CH 4 (Rd. 2750N) on Rd. 1240E
2	Split (lightning damaged) crossarn		4 spans south of CH 4 (Rd. 2750N) on Rd. 1240E
4	Broken neutral spool		2 spans north of CH 4 (Rd. 2750N) on CH 3 (Rd. 1100E)
4	Missing guy marker		On CH 3 (Rd. 1100E) at Ch 4 (Rd. 2750N)
4	Lightning damaged pole top		1 span south of CH 4 (Rd. 2750N) on CH 3 (Rd. 1100E)
4	Old lightning damage to pole top		4 spans south of CH 4 (Rd. 2750N) on CH 3 (Rd. 1100E)
5	Lightning damaged, split pole top	C9	2nd pole north of Sta. 33060 on CH 3 (Rd. 1100E)
6	2 missing guy markers		At Sta. 33061 north of CH 2 (Rd. 2700N)
6	Missing guy marker		1st pole east of CH 3 (Rd. 1100E) in tap to Sta.

Attachment "B"

Map No.	Item Description	Photo(s)	Location
6	Disconnected ground wire (at neutral)		5th pole north of tap to Sta. 34646 on CH 3 (Rd. 1100E)
7	Missing guy marker		At Sta. 33064 on CH 3 (Rd. 1100E)
8	Missing guy marker		On Rd. 1240E at 1st pole from north edge of map (on west side of road at primary road crossing)
8	2 missing guy markers		On Rd. 1240E at 2nd pole from north edge of map (on east side of road at primary road crossing)
8	Minor lightning damage to pole		On Rd. 1240E at 4th pole from north edge of map
8	Broken 10" suspension insulator on bottom phase	C7	On Rd. 1240E at 8th pole from north edge of map (on east side of road at primary road crossing)
9	Lightning damaged pole (superficial damage)		4th pole north of tap to Sta. 34420 on Rd. 1240E
9	Missing guy marker		1st pole east of Rd. 1240E in tap to Sta. 34420
9	Lightning damaged crossarm (not bad)		2nd pole south of tap to Sta. 34420 on Rd. 1240E
10	Missing guy marker		At Sta. 34741 in tap going west from Rd. 1240E
10	Missing guy marker		1st pole west of Rd. 1240E in tap to Sta. 34529
12	Loose pole top pin		On S. Station St. at 3rd pole NE of tap to Sta. 34417
12	Lightning damaged pole top		On S. Station St. at 4th pole NE of tap to Sta. 34417
12	Blown lightning arrester		On S. Station Rd. 2 spans SW of tap to Sta. 34416
14	Blown lightning arrester		On Johnson St. south of W. Prospect, Oneida (not labeled on map), on riser pole feeding Sta. 27103
14	Large woodpecker hole near pole top		1st pole north of Sta. 27065 on Johnson St., Oneida (not labeled on map)
14	Missing guy marker		At Sta. 27095 north of corner of Johnson & W. Pine Sts., Oneida (not labeled on map)
14	Missing guy marker		NE corner of N. Wataga & W. Chestnut Sts., Oneida (not labeled on map)
14	Missing guy marker		NE corner of N. Wataga & W. Ontario Sts., Oneida (not labeled on map)
14	Badly twisted crossarm & missing guy marker	C6	1 span east of N. Knox St. on W. Ontario St., Oneida (not labeled on map)
14	Badly shell rotted pole		At Sta. 27083 on N. Knox St. north of W. West St., Oneida (not labeled on map)

Attachment "B"

Map No.	Item Description	Photo(s)	Location
14	Badly deteriorated crossarm		1st pole west of Sta. 27001 on E. Ontario St., Oneida (not labeled on map)
14	Missing guy marker		SE corner of N. Center & E. Ontario Sts., Oneida (not labeled on map)
14	Missing guy marker		1st pole west of Sta. 27051 on E. Ontario St., Oneida (not labeled on map)
14	Deteriorated crossarm & wood pin (road side)	C4	2nd pole east of Sta. 27051 on E. Ontario St., Oneida (not labeled on map)
14	Missing guy marker		1st pole east of N. Washington St. on E. Ontario St., Oneida (not labeled on map)
14	Missing guy marker		2nd pole east of N. Washington St. on E. Ontario St., Oneida (not labeled on map)
14	Two badly shell rotted poles		At both ends of tap to Sta. 27033 going east from N. Knox St., Oneida (not labeled on map)
14	Split pole top		1st pole north of Sta. 27078 on N. Knox St., Oneida (not labeled on map)
14	Center & field-side lightning arresters disconnected		At Sta. 27007 between US Rt. 34 (Railroad St.) & the BN Railroad, Oneida (not labeled on map)
14	Missing guy marker		1st pole NE of Sta. 27007 between US Rt. 34 (Railroad St.) & the BN Railroad, Oneida (not labeled on map)
14	Broken wood pin	C1, C2	1 span north of BN Railroad along extension of Center St., Oneida (not labeled on map)
14	Missing guy marker		At Sta. 27081west of N. Joy St. on E. West St., Oneida (not labeled on map)
14	2 missing guy markers		NW corner of US Rt 34 (Railroad St.) & N. Joy St., Oneida (not labeled on map)
14	Missing guy marker		NE corner of Depot St. & W. Prospect St., Oneida (not labeled on map)
14	Shell rotted pole		1 span east of Depot St. on W. Prospect St., Oneida (not labeled on map)
14	Badly shell rotted pole		1 span north of W. Prospect St. on S. Center St., Oneida (not labeled on map)

Attachment "B"

Map No.	Item Description	Photo(s)	Location
14	Deteriorated crossarm		SE corner of E. Dayton & S. Center Sts., Oneida (not labeled on map)
14	Missing guy marker		At Sta. 27069 north of E. Prospect St., Oneida (not labeled on map)
14	Shell rotted pole		2nd pole west of Sta. 27036 on Rova Dr., Oneida (not labeled on map)
14	Shell rotted pole & missing guy marker		1st pole west of Sta. 27036 on Rova Dr., Oneida (not labeled on map)
14	Shell rotted pole		1st pole east of Sta. 27036 on Rova Dr., Oneida (not labeled on map)
14	2 missing guy markers		Corner of Washington St. & Rova Dr., Oneida (not labeled on map)
14	Burned pole top & pin bolt coming out	C5	At Sta. 27014 on N. Joy St., Oneida (not labeled on map)
14	Shell rotted pole & missing guy marker		SW corner of E. Prospect & S. Grove Sts., Oneida (not labeled on map)
14	Shell rotted pole, pin coming off, bolt missing		1 span south of E. Prospect St. on S. Grove St., Oneida (not labeled on map)
14	Shell rotted pole & pin coming off pole		2 spans south of E. Prospect St. on S. Grove St., Oneida (not labeled on map)
14	2 missing guy markers		1st pole east of Sta. 27004 on E. Prospect St., Oneida (not labeled on map)
15	Missing guy marker		1 span south of W. Ontario Rd. in tap 1 span west of Sta. 27114.
17	Badly shell rotted corner pole		SW end of tap to Sta. 34427, north of Post Rd.
17	Missing guy marker		At Sta. 34427, north of Post Rd.
18	Missing guy marker		NE corner of E. Fremont & S. Joy Sts., Oneida (not labeled on map)
18	Missing guy marker		At Sta. 27049, 4 spans west of Center St. (Rd. 1125E)
18	Missing guy marker		NE corner of Center St. & Rd. 2400N
18	Missing guy marker		1st pole north of Sta. 33068 on Rd. 1125E
18	Broken spool, neutral hanging down	C3	1st pole east of Joy St. on Rd. 2400N

Attachment "B"

Map No.	Item Description	Photo(s)	Location
18	Hanging steel brace		4th pole east of Joy St. on Rd. 2400N
19	Hanging steel brace		4th pole west of Sta. 33070 on Rd. 2400N
19	Broken spool		2nd pole west of Sta. 33070 on Rd. 2400N
19	Hanging steel brace		1 span east of Rd. 1240E on Rd. 2400N
19	Blown lightning arrester (road side)		Approximately 10 poles south of Rd. 2400N on Rd. 1240E
20	Hanging steel brace		2 spans east of Rd. 1240E on Rd. 2400N
20	Broken ground		4th pole west of Sta. 34265 on Rd. 2400N
21	Blown lightning arrester		At Sta. 34265 on Rd. 2400N
21	Broken ground & missing guy marker		2 spans east of Rd. 1350E on Rd. 2400N
22	Missing guy marker		On Rd. 1240E at tap to Sta. 33075
24	Blown lightning arrester		At Sta. 33565 on IL Rt. 167
25	Missing guy marker		At east end of line on IL Rt. 167
26	Broken ground		1st pole north of UG tap to Sta. 33375
26	Missing guy marker		At Sta. 34780 on Rd. 1240E
26	Missing guy marker		1st pole west of Rd. 1240E in tap to Sta. 33069
27	Two woodpecker holes in pole (halfway up pole)		2nd pole south of Sta. 33083 on Rd. 1240E
27	Lightning damaged pole top (not bad)		1 span east of Rd. 1240E on Rd. 2100N
27	Missing guy marker		At Sta. 34423 on Rd. 2100N
28	Missing guy marker		1st pole north of tap to Sta. 33065 on Rd. 1125E
28	Missing guy marker		At Sta. 33065 west of Rd. 1125E
28	Missing guy marker (on new pole)		1st pole south of Rd. 2350N on Rd. 1100E
29	Badly split pole top (lightning damage)	C10	2nd pole south of Sta. 34441 on Rd. 1100E
30	2 missing guy markers		1 span north of Sta. 34442 on Rd. 1100E, on both sides of road
31	2 missing braces (on field side)		4th pole south of recloser Sta. 205-4 on Rd. 1100E
31	Missing guy marker		At Sta. 34444 on IL Rt. 167 (Rd. 2200N)
31	Missing guy marker		SW corner of Rd. 1150E & IL Rt. 167 (Rd. 2200N)
31	Hanging steel brace		3 spans north of IL Rt. 167 on Rd. 1150E
32	Badly lightning damaged pole top	C12	1st pole west of Rd. 1050E on Rd. 2150N
32	Hanging steel brace		1 span east of Rd. 1050E on Rd. 2150N
32	Missing guy marker		On stub pole on east side of Rd. 1100E at Rd. 2150N
32	Woodpecker hole near top of pole		1st pole south of Sta. 34030 on Rd. 1100E

Attachment "B"

Map No.	Item Description	Photo(s)	Location
33	Missing guy marker		Approximately 7 spans east of tap to Sta. 34449
35	Missing guy marker		1st pole SE of Sta. 34499, west of Rd. 1050E
35	Lightning damaged pole top		2nd pole north of Sta. 34453 on Rd. 1100E
35	Missing guy marker		At Sta. 34453 on Rd. 1100E
35	Missing guy marker		At Sta. 33640 west of Rd. 1100E
35	Missing guy marker		At Sta. 34462 on Rd. 1100E
36	Trees close to primary		At Sta. 34454 on road not labeled on map
36	Missing guy marker		1st pole east of Sta. 34456 on road not labeled on map
36	Missing guy marker		At Sta. 34458 on road not labeled on map
36	Badly shell rotted pole		1st pole east of Sta. 34458 on road not labeled on map
36	Badly split pole		2nd pole east of Sta. 34458 on road not labeled on map
36	Missing guy marker		At Sta. 34835 on tap north from road not labeled on map
36	Missing guy marker		1st pole NW of Sta. 34459 on road not labeled on
36	Missing guy marker		At Sta. 34459 on road not labeled on map
36	Shell rotted pole		1st pole east of Sta. 34459 on road not labeled on map
36	Missing guy marker		At Sta. 34460 on road not labeled on map
37	Missing guy marker		1st pole south of road not labeled on map in tap to Sta. 34918
37	Missing guy marker		At Sta. 34878 in tap going north from road not labeled on map
37	Burned pole top	C11	1st pole east of Sta. 34461 on road not labeled on map

Attachment "C"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/5/05**
Circuit:	**Galesburg 205 (Rural west & southwest of Oneida)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**

Gen. Notes: This circuit is a continuation of AmerenIP's Kewanee Circuit 205, which was a 2004 worst performing circuit. The Galesburg portion of the circuit serves a rural area west and southwest of Oneida. Maps for this part of the circuit were not initially provided by AmerenIP. There were no tree conflicts on this circuit, and animal guards and "additional" lightning arresters were noted throughout the circuit. Very different from the Kewanee portion of this circuit, only one missing guy marker was noted. Some mapping errors were noted.

Map No.	*Item Description*	*Photo(s)*	*Location*
2 of 22	Missing guy marker		Stub pole at the SE corner of Rds. 2350N & 900E
4	Blown lightning arrester		5th pole north of transmission line crossing on Rd. 900E
4	Minor lightning damage to three pole tops		3rd, 4th, & 5th poles north of transmission line crossing on Rd. 900E
4	Lightning damaged pole top	C18	2nd pole north of transmission line crossing on Rd. 900E
4	Badly shell rotted pole		On Rd. 900E 5 spans north of tap to Sta. 20897
4	Split (lightning damaged) pole top		On Rd. 900E 4 spans north of tap to Sta. 20898
5	Broken spool		2nd pole west of Sta. 17412 on Rd. 2350N
6	Lightning arrester not connected		On Rd. 2350N at Sta. 10580
7	Damaged crossarm	C19	3 spans south of Rd. 2350N on CH 36 (Rd. 800E)
10	Broken downguy		On Rd. 1000E at Sta. 14424
11	Broken ground wire		4 spans west of CH 3 (Rd. 1100E) on Rd. 2600N
11	Broken spool, loose pole top pin, & minor lightning damage to pole top		3rd pole south of Sta. 14421 on CH 3 (Rd. 1100E)
12	Woodpecker hole near pole top & split pole top	C15	2 spans south of Rd. 2600N in tap to Sta. 23228
13	Hanging steel brace		2nd pole west of Sta. 25810 on Rd. 2600N
13	Split crossarm	C13, C14	1st pole east of Sta. 25810 on Rd. 2600N
13	2 broken spools		1st & 2nd poles west of Sta. 14427 on Rd. 2600N
14	Blown lightning arrester		1st pole east of Rd. 800E on Rd. 2600N
15	Broken spool		4th pole south of Sta. 14434 on Rd. 800E
17	Lightning damaged pole top		6th pole north of CH 35 (Rd. 2500N) on Rd. 900E
17	Hanging steel brace on new pole		3 spans south of CH 35 (Rd. 2500N) on Rd. 900E

Attachment "C"

Map No.	Item Description	Photo(s)	Location
21	Blown lightning arrester		At Sta. 13483 on Rd. 2350N on the east side of the BN railroad (map error)
22	Old lightning damage to pole top		1 span south of Rd. 2350N on Rd. 1000E
22	Lightning damaged pole top	C16, C17	3 spans south of Rd. 2350N on Rd. 1000E
22	Old (minor) lightning damage to several poles		Several poles in a row north of Sta. 14343 on Rd. 1000E

Attachment "D"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/5/05 (formerly inspected 6/15 & 8/24-25/04)**
Circuit:	**Galesburg 135 (Alpha, Woodhull, Rio, & rural)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**

Gen. Notes: This circuit was a worst performing circuit in 2003, serving Alpha, Woodhull, Rio, and a large rural area. Staff's inspection of this circuit in 2004 revealed several incidences of lightning damage to poles, arms, and braces. There were many problems with the existing lightning arresters, and more were noted as needed. A total of 41 lightning arresters on the circuit were blown and/or disconnected at that time. Staff performed a partial reinspection of this circuit on 4/5/05, visiting the 41 problem lightning arrester locations and other significant structural problem locations from the prior year (using maps provided in 2004). Only the maps that were revisited are listed below, with the 2004 notes in **black** and the 4/05 notes added in **red**. Several new poles, crossarms, and additional lightning arresters have been installed since the 2004 inspection. Approximately 70% of the problem locations reinspected had been corrected as of 4/5/05.

Map No.	*Item Description*	*Photo(s)*	*Location*
7 of 138	Two blown lightning arresters. OK now.		1 span south of 300 N on 500 E
7	Split crossarm. OK now--new crossarm.	GG3	1st pole north of Sta. 27280 on 500 E (north of 300 N)
13	Missing guy marker. OK now.		3 spans east of Knoxville Trail on 150 N
14	Two broken neutral spool insulators. OK now.		6th & 7th poles east of Knoxville Trail on 150 N
14	**Badly lightning damaged crossarm.**	**C20**	**8th pole east of Knoxville Trail on Rd. 150N**
14	Lightning damaged wood brace (field side). **No change.**		9th pole east of Knoxville Trail on 150 N
15	Blown lightning arrester (field side). OK now.		At Sta. 26923 on 150 N
15	Blown lightning arrester. OK now.		At Sta. 18041 on 150 N
15	Broken (lightning damaged) wood crossarm brace. OK now--crossarm & braces replaced.	GG5	2 spans west of 190 E on 150 N
16	Two shell rotted poles. **The pole 7 spans north of 190E is badly shell rotted & has not been changed.** The other pole has been replaced.		7 & 10 spans north of 150 N on 190 E
16	Hanging steel brace (not reinspected).		3rd pole east of 190 E on 150 N
16	Blown lightning arrester (field side) (not reinspected).		6th pole east of 190 E on 150 N
19	Broken neutral spool insulator (not reinspected).		Approximately 7 spans west of 400 E on Rt. 17
19	Lightning arrester disconnected. OK now.		1 span south of Rt. 17 on 400 E
19	Blown lightning arrester. OK now.		5 spans south of Rt. 17 on 400 E
20	Split wood brace. **No change.**		4th pole west of Sta. 15485 on Rt. 17
20	Lightning damaged, split wood brace. OK now.	GG4	3rd pole west of Sta. 15485 on Rt. 17
20	Broken downguy (to south from pole). OK now.		2nd pole west of Sta. 15485 on Rt. 17

Attachment "D"

Map No.	Item Description	Photo(s)	Location
20	Hanging steel brace. OK now.		2nd pole south of Sta. 25161 on 500 E
20	Blown lightning arrester. OK now.		4 spans south of Rt. 17 on 500 E
21	Blown lightning arrester (field side). OK now.		2nd pole north of tap to Sta. 22140 on 500 E
21	Field side lightning arrester missing & road side lightning arrester blown. OK now.		3rd pole south of tap to Sta. 22140 on 500 E
21	Hanging steel brace. OK now.		2nd pole north of tap to Sta. 19866 on 500 E
21	Hanging steel brace. OK now.		At tap to Sta. 19866 on 500 E
24	Missing guy marker (not reinspected).		Corner of W. 5th St. & Colleen St., Woodhull
24	Hanging steel brace (road side). **No change.**		On W. 4th St. between W. 3rd & W. 4th Aves., Woodhull
24	Shell rotted pole. **No change.**		At Sta. 15590 north of W. 5th Ave. on N. Division St., Woodhull
24	Badly shell rotted pole. No change, but new pole on ground ready for replacement.	O5	Just east of E. 3rd St. in the alley between E. 2nd & E. 3rd Aves., Woodhull
25	Badly lightning damaged pole. No change, but new pole on ground ready for replacement.	O3, O4	4 spans east of CH9 (680 E) on 200 N
27	Two hanging steel braces (road side). **No change.**		2nd & 5th poles west of 780 E on 200 N
28	Split crossarm & hanging steel brace. **No change.**	O1, O2	5 spans east of 780 E on 200 N
33	Blown lightning arrester. OK now.		1st pole north of tap to Sta. 24211 on 400 E
34	Two blown lightning arresters. OK now.		5th pole north of tap to Sta. 15488 on 500 E
34	Lightning damaged pole top & hanging wood brace. OK now--new pole.	GG2	3rd pole north of tap to Sta. 15488 on 500 E
35	Two (of three) blown lightning arresters (center & field side). OK now.		3rd pole north of Sta. 17248 on 590 E (labeled 600 E on map)
36	Lightning damaged pole top. OK now--new pole.	O6	1 span south of S. E. 2nd Ave. on S. E. 3rd St. (not labeled on map), Woodhull
42	Blown lightning arrester (field side). OK now.		At Sta. 26551 on 50 N
47	Blown lightning arrester. OK now.		At Sta. 17251 (at east end of line) on 100 N
47	Lightning damaged pole top. OK now--new pole.	GG1	1st pole on the east side of 500 E south of 100 N
51	Pole burned about 8 feet from top. **No change.**	O10	1 span east of 870 E on Rt. 17

Attachment "D"

Map No.	Item Description	Photo(s)	Location
56	Two split wood braces (field side). **No change.**	GG7	On Rt. 150 at Sta. 17272
60	Two blown lightning arresters & split crossarm. **No change.**	O9	1st pole south of Sta. 17312 on 870 E
73	Badly lightning damaged pole top. OK now--new pole.	O7	1 span south of 0 N Henry Co. on 600 E
75	Blown lightning arrester (field side). **No change.**		1st pole east of Sta. 17211 on 0 N Henry Co.
75	Missing guy marker. **No change.**		1 span south of 0 N Henry Co. on 800 E
75	Hanging steel brace. **No change.**		1st pole east of tap to Sta. 17206 on 3000 N Knox Co.
76	Lightning damaged pole. **No change (not bad).**	O8	At Sta. 17207 (out of service) west of 900 E on 0 N Henry Co.
76	Blown lightning arrester (B phase). **No change.**	O9	5th pole north of 3000 N Knox Co. on 870 E
76	Blown lightning arrester (A phase). **No change.**		3 spans south of 3000 N Knox Co. on 900 E
76	Blown lightning arrester (A phase). **No change.**		8 spans south of 3000 N Knox Co. on 900 E
81	Blown lightning arrester (not reinspected).		At Sta. 17120 on 2900 N
81	Broken (lightning damaged) wood crossarm brace (road side). OK now--new brace.		2 spans south of 2900 N on Rt. 150
81	Blown lightning arrester. OK now.		2nd pole south of tap to Sta. 24766 on Rt 150
84	**Blown lightning arrester**		**At Sta. 17144 on Rd. 600E**
90	Hanging steel brace (road side). OK now.		3rd pole north of tap to Sta. 23211 on 900 E
90	Both steel braces hanging. OK now.	O11	2nd pole north of tap to Sta. 23211 on 900 E
92	Blown lightning arrester. OK now.		At Sta. 17156 at east end of line on 2800 N
93	Blown lightning arrester (road side). OK now.		1 span east of Main St. on 2800 N
93	Missing guy marker (not reinspected).		2nd pole south of Sta. 15329 on Main St. (200 E)
95	Blown lightning arrester (road side). OK now.		2nd pole west of Sta. 27073 on 2800 N
99	Neutral spool bolt coming out of pole. OK now.	GG9	2nd pole east of tap to Sta. 16560 on 2800 N
99	Hanging steel brace. OK now.		5th pole east of tap to Sta. 16560 on 2800 N
102	Blown lightning arrester. OK now.		1 span west of 1000 E on 2800 N
103	Disconnected lightning arrester. OK now.		3rd pole south of 2800 N on 1000 E
112	Disconnected lightning arrester. OK now.		3 spans from south end of line on 1000 E
113	Split pole top. OK now--new pole.	GG8	2nd pole north of Sta. 14749 on Main St. (200 E)
113	Neutral wood pin through crossarm. **No change.**		1st pole north of Sta. 14749 on Main St. (200 E)
119	Blown & disconnected lightning arrester. OK now.		10 spans west of Sta. 16574 on CH2 (2700 N)

Attachment "D"

Map No.	Item Description	Photo(s)	Location
119	Blown & disconnected lightning arrester. OK now.		5 spans west of Sta. 16574 on CH2 (2700 N)
120	Broken downguy. OK now.		Corner of CH2 (2700 N) & 1000 E
120	Blown lightning arrester. OK now.		1st pole south of CH2 (2700 N) on 1000 E
120	Blown lightning arrester (arrester is gone--only mounting bracket & jumpers remain). OK now.		5th pole south of CH2 (2700 N) on 1000 E
126	Blown lightning arrester. OK now.		1st pole west of 150 E on 2550 N
126	Disconnected lightning arrester. OK now.		6th pole south of 2550 N on 150 E
126	Blown lightning arrester. OK now.		3rd pole east of 150 E on 2550 N
134	Missing guy marker (not reinspected).		On CH35 (2500 N) at tap to Sta. ??? (not labeled on map), west of Burlington Northern RR
134	Blown lightning arrester (road side). OK now.		2nd pole west of 400 E on CH35 (2500 N)

Attachment "E"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/12/05**
Circuit:	**Bloomington 202 (Danvers, Stanford, & rural)**	**Inspector:**	**J. D. Spencer, w/ Bev Hall (Ameren)**

Gen. Notes: This circuit was a worst performing circuit in 2004, repeating in this category from 1999. It serves Danvers, Stanford, and rural areas near and between those communities. Many new poles are scattered throughout the circuit, and some new lightning arresters were noted. One disconnected and eight blown lightning arresters were noted. Neither Danvers nor Stanford were labeled on the circuit maps.

Map No.	*Item Description*	*Photo(s)*	*Location*
2 of 35	Neutral off spool		1st pole east of State St. on North St., Danvers (not labeled on map)
4	Shell rotted pole		2nd pole north of tap to Sta. 10581 on CH 53
8	Missing guy marker		North side of IL Rt. 9 at Rd. 250E
11	Broken strand in 6ACW phase conductor	D20	2nd span from end of tap to Sta. 10599, south of IL Rt. 9
11	Missing guy marker		At stub pole just SW of Sta. 10599, south of IL Rt. 9
12	Broken downguy		1st pole east of tap to Sta. 16742 on IL Rt. 9
14	Blown lightning arrester (field side)		3rd pole south of Rd. 1550N on IL Rt. 9
15	Blown lightning arrester (center phase)		7 spans north of Rd. 1450N on IL Rt. 9
18	Lightning arrester disconnected at primary (road side)		2nd pole west of Sta. 20106 on IL Rt. 9 (Rd. 1400N)
18	Steel brace disconnected at crossarm		1st pole west of Sta. 20106 on IL Rt. 9 (Rd. 1400N)
18	Blown lightning arrester		At Sta. 10608 on IL Rt. 9 (Rd. 1400N)
19	Missing guy marker		At Sta. 20082 on south side of IL Rt. 9, east of Rd. 600N
19	Blown lightning arrester		2nd pole west of Sta. 10611 on IL Rt. 9 (Rd. 1400N)
21	Blown lightning arrester (center phase)		8 spans north of Rd. 1300N on IL Rt. 122 (Rd. 400E)
21	Hanging steel brace		2 spans east of IL Rt. 122 (Rd. 400E) on Rd. 1300N
22	Blown lightning arrester (center phase)		2nd pole north of recloser Sta. 202-2 on IL Rt. 122
24	Blown lightning arrester (field side)		3rd pole north of Sta. 16119 on IL Rt. 122 (Rd. 400E)
25	Broken downguy		3 spans east of Rd. 400E on Rd. 1100N
26	Blown lightning arrester (center phase)		1st pole east of tap to Sta. 10626 on IL Rt. 122
26	Broken spool		3rd pole east of tap to Sta. 10626 on IL Rt. 122
27	2 broken spacer cable spacers		2nd span south of Sta. 22264 on Division St.
27	2 broken spacer cable spacers		2nd span north of Sta. 14893 on Division St.
27	Broken spacer cable spacer		1st span north of Sta. 10636 on Division St.

Attachment "E"

Map No.	Item Description	Photo(s)	Location
28	Broken spacer cable spacer		1st span south of Sta. 10634 on Division St., Stanford (not labeled on map)
28	2 broken spacer cable spacers		1st span north & 1st span south of Sta. 10633 on Division St., Stanford (not labeled on map)
28	Broken downguy		At Sta. 11728 north of Boundary Ave. on street not labeled on map, Stanford (also not labeled on map)
31	Lightning damaged crossarm & braces (both wood braces split/broken)	D21, D22	1st pole north of Rd. 1000N on Rd. 150E
31	Missing guy marker		At Sta. 10662 (OOS) on Rd. 150E
34, 35	Missing guy marker		At Sta. 10670 west of Rd. 000E (3500E)

Attachment "F"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/13/05**
Circuit:	**Granite City 300 (Venice, Brooklyn, National City)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**

Gen. Notes: This circuit was a worst performing circuit in 2004, serving Venice, Brooklyn, & National City. There were several inaccessible areas on this circuit. None of the cities were labeled on the circuit maps provided. ***One NESC violation was noted.***

Map No.	*Item Description*	*Photo(s)*	*Location*
2 of 5	Deteriorated pole top		At Sta. 18185 on 6th St., Brooklyn (not labeled on map)
2	Trees very close to primary		In 1st span south of Jefferson St. on 7th St., Brooklyn (not labeled on map)
4	Trees close to primary		At & west of Sta. 23074 in the alley north of Canal St. between 7th & 8th Sts., Brooklyn (not labeled on map)
4	No downguy behind primary deadend		On 3rd St. at the alley north of Canal St., Brooklyn (not labeled on map)
4	Vines growing up pole & on transformer	E8	Sta. 12805 just east of 3rd St. in the alley north of Adams St., Brooklyn (not labeled on map)
4	Deteriorated crossarm	E9	1 span east of Sta. 12787 in the alley north of Adams St., Brooklyn (not labeled on map)
4	Vines on transformer		Sta. 18640 in the alley north of Adams St., Brooklyn (not labeled on map)
4	Dead vines on pole at cutouts		On Big Bend Rd. at tap to Sta. 30739, Brooklyn (not labeled on map)
4	Split, deteriorated crossarm w/pin mounted on end of bad arm	E7	At Sta. 24391 on St. Clair Ave., Brooklyn (not labeled on map)
5	**Code structural strength violation (NESC 261.D.4.c):** Single wood crossarms supporting a 3-phase crossing of a railroad, on both sides of the railroad crossing		Along St. Clair Ave. at the crossing of railroads labeled on the circuit map as the New York Central and St. Louis RR, the Illinois Terminal RR, and the Illinois Central RR, National City (not labeled on map)
5	Bad pole top		1st pole south of Sta. 12778 on St. Clair Ave., National City (not labeled on map)
5	Missing primary downguy		At Sta. 18953 at the south end of the circuit on St. Clair Ave., National City (not labeled on map)

Attachment "G"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/13/05**
Circuit:	**Granite City 290 (Madison, Granite City)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**

Gen. Notes: This circuit was a next-worst performing circuit in 2004, serving Madison and Granite City. There were several inaccessible areas on this circuit. Most of the transformers were protected with animal guards. Neither Madison nor Granite City were labeled on the circuit maps provided.

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 7	Trees into primary	E11	In alley between Edwardsville Rd. & Meridian Ave. in 1st span NE of Sta. 13421, Madison (not labeled on map)
1	Trees close to primary		Near & east of Sta. 12905 in the alley north of Harris Ave., Madison (not labeled on map)
1	Trees very close to primary	E12	In 1st span east of McNair Ave. in the alley south of Harris Ave., Madison (not labeled on map)
2	Missing guy guard		1 span east of Madison Ave. on Wayne Lanter Ave., Madison (not labeled on map)
2	Blown lightning arrester (field side)		Sta. 27088 on Wayne Lanter Ave., Madison (not labeled on map)
2	Trees close to primary		In alley north of 4th St. between McCambridge & McNair Aves., Madison (not labeled on map)
6	Trees close to primary		Between Stas. 11242 & 19782 in the alley between Lee Ave. & Monroe St., Granite City (not labeled on map)
6	Trees very close to primary		Between transmission structures 7 & 8 on Monroe St., Granite City (not labeled on map)
6	Trees close to primary		On the west side of Bromley Ave. in the alley north of Lincoln St., Granite City (not labeled on map)
7	Blown lightning arrester		At Sta. 21385 on the east side of Ridgedale Ave. in the alley north of Lincoln St., Granite City (not labeled on map)
7	Deteriorated crossarm w/wood pin holes	E10	At Sta. 10286 in the alley north of E. 23rd St., east of Ridgedale Ave., Granite City (not labeled on map)

Attachment "H"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/13/05**
Circuit:	**Belleville 166 (Belleville, Rentchler, & rural)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**

Gen. Notes: This circuit was a next-worst performing circuit in 2004, serving the southeast edge of Belleville, Rentchler, and a rural area southeast of Belleville. There were many inaccessible cross-country sections of this circuit, and several underground areas. Many "additional" lightning arresters, several new poles, and several animal guards were noted. The communities and a few of the roads were not labeled on the circuit maps provided.

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 31	Missing guy marker		1st pole east of Greenmount Lane (CH 89) in tap to Sta. 24751, Belleville (not labeled on map)
4	Badly split pole top	E13	1st pole west of fuse Sta. 166-41 on Keck Rd.
5	Cedar tree close to primary		1st span north of tap to Sta. 13708 on road not labeled on map
9	Broken spool		2nd pole north of tap to Sta. 13725 on Radio Range Rd.
11	Blown lightning arrester (center phase)		1st pole east of recloser Sta. 166-5 on IL Rt. 177 (east of Schneider Rd.)
12	Missing guy marker		IL Rt. 177 at tap to Sta. 13711
12	Missing guy marker		1 span north of IL Rt. 177 in the tap to Sta. 13711
19	Missing guy marker		1 span southeast of fuse Sta. 166-69 (roads not labeled on map)
20	Blown lightning arrester		On west side of Whispering Pines in tap to Sta.
21	Probable split pole top (badly leaning pin)		3rd pole west of recloser Sta. 166-10 in cross-country primary going west from Rentchler Rd. (CH 1)
22	2 missing guy markers		At the tap and 1 span east of the tap to Sta. 13755, Liberty Mine Rd.
22	Badly damaged pole--at the bottom, stubbed (marked for replacement)	E14	4th pole west of Sta. 19720 on Liberty Mine Rd.
23	Missing guy marker		At Sta. 37968 on Liberty Mine Rd.
25	Woodpecker holes in 2 poles		On Reinneck Rd. at tap and at 1st pole south of tap to Sta. 24038.
25	2 broken spools		2nd & 3rd poles north of tap to Sta. 24038 on Reinneck Rd.

Attachment "H"

Map No.	Item Description	Photo(s)	Location
26	Blown lightning arrester		2nd pole north of tap to Sta. 23667 on Funk School Rd.
28	Woodpecker hole in pole top		In tap to Sta. 28294, 1 span east of UG tap to Sta. 28293 (next to Hazel Creek)
28	Blown lightning arrester		2 spans east of Reinneck Rd. in tap to Sta. 26645
29	Bad pole top, w/woodpecker holes	E15, E16	2nd pole north of tap to Sta. 13757 on Funk School Rd.
29	Deteriorated pole top		1st pole north of tap to Sta. 13757 on Funk School Rd.

Attachment "I"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/14/05**
Circuit:	**Belleville 235 (New Athens)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**

Gen. Notes: This circuit was a worst performing circuit in 2004, serving the southern two-thirds of New Athens. Many animal guards have been installed throughout the circuit. Several tree conflicts were noted, as listed below. New Athens was not labeled on the circuit maps provided.

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 5	Missing guy marker		At Sta. 19347 on VanBuren St. north of St. Clair St.
1	Trees into primary & between phases	E21	In alley east of VanBuren St. in span south of Sta. 25612, north of Mill St.
1	Trees close to primary		On Mill St. on both sides of Sta. 21968 (west of Benton St.)
1	Badly shell rotted pole (marked to be changed		Corner of Mill & Johnson Sts.
1	Oak tree into primary	E18, E19, E20	On Johnson St. just north of South St.
1	Trees close to primary		VanBuren St. south of Belsha St.
1	Missing guy marker		Northwest corner of Market & Spottsylvania Sts.
2	Pine trees very close to primary	E22	In alley east of Clinton St. just north of Kaskaskia St. (1 block from substation)
2	Soft maple tree into & over primary	E23	In alley east of Clinton St. between Kaskaskia & St. Clair Sts. (1 1/2 blocks from substation)
2	Trees close to primary		St. Clair St. just east of Clinton St.
2	Primary through soft maple tree	E24	Mill St. west of East St.
2	Primary through edge of pin oak tree		Eastlawn St. in 2nd span south of Sta. 26699
2	Trees very close to primary		Elizabeth St. just north of Sta. 21498 (between Belsha & South Sts.)
2	Redbud tree very close to primary		Corner of Belsha & Elizabeth Sts.
2	Pin oak tree into primary	F2, F3	Highland St. just north of Sta. 22871 (south of Belsha St.)
2	Primary through soft maple tree	F4, F5, F6	Highland St. north of Sta. 22872 (south of South St.)
2	Soft maple tree close to primary		Belsha St. just west of Church St.
2	Trees close to primary		2nd span east of Eastlawn St. on Belsha St
3	Broken (lightning damaged) pole	F7, F8	1 span south of Sta. 37406 on White Cabin Lodge

Attachment "J"

Summary of Distribution Circuit Field Inspection by ICC Staff			
Utility:	**AmerenIP**	**Date:**	**4/14/05**
Circuit:	**Belleville 163 (Rural Belleville, Freeburg)**	**Inspector:**	**J. D. Spencer, w/ Mike Tautphaeus (Ameren)**
Gen. Notes:	This was a 12 kV worst performing circuit in 2004, repeating as a worst performer from 2002 and 2000. It serves a rural area southeast of Belleville extending south to Freeburg. Staff performed a partial re-inspection of this circuit on 4/14/05, concentrating only on the main feeder portions of the circuit involving approximately half of the 36 circuit maps provided. Only one problem, a tree conflict, was noted. Several "additional" sets of lightning arresters and many animal guards have been added to this circuit. Several new poles and crossarms were also noted.		

Map No.	***Item Description***	***Photo(s)***	***Location***
26 of 36	Bradford pear trees growing into primary		In 1st span southwest of CH 4 in tap to Sta. 24575

Attachment "K"

Summary of Distribution Circuit Field Inspection by ICC Staff			
Utility:	**AmerenIP**	**Date:**	**4/18/05**
Circuit:	**Mt. Vernon 107 (Mt. Vernon)**	**Inspector:**	**J. D. Spencer, w/ Mike Vandas (Ameren)**
Gen. Notes:	This circuit was a worst performing circuit in 2004, serving a small central portion of Mt. Vernon. There were no tree conflicts on this circuit, and the circuit is well animal guarded. The structures looked good.		

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 2	Missing guy marker		Corner of 20th St. & the alley south of Broadway

Attachment "L"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/19/05**
Circuit:	**Sparta 915 (Chester & rural)**	**Inspector:**	**J. D. Spencer, w/ Mike Vandas (Ameren)**

Gen. Notes: This circuit was a worst performing circuit in 2004, repeating in this category from 1999. It serves a small northern portion of Chester and a rural area mostly north and northeast of Chester. There were no tree problems on this circuit, and several new poles and crossarms were noted. The circuit needs more animal guards in the rural areas, though many were noted on the small portion of the circuit lying within the City of Chester. Chester was not labeled on the circuit maps provided. Several of the roads were also not labeled or labeled incorrectly. There were several inaccessible cross-country sections of the circuit.

Map No.	*Item Description*	*Photo(s)*	*Location*
2 of 27	Bad (ragged) pole top		At Sta. 15543 on State St., Chester (not labeled on map)
2	Several woodpecker holes in pole (2 large)	F17	Northwest corner of Garfield Ave. & Lincoln Blvd., Chester (not labeled on map)
2	Badly shell rotted pole top	F18	Corner of Garfield Ave. & the alley north of Lincoln Blvd., Chester (not labeled on map)
3	Missing guy marker		1 span south of Murphysboro Rd. on Meadowview Dr.
6	4 large woodpecker holes in 34 kV corner pole w/ 12 kV underbuild & tap	F19	Corner of Old Plank Rd. (labeled Old Chester Rd. on map) & Dawnview Rd.
7	Missing guy marker		1 span west of Sta. 13020 at the corner of Dawnview Rd.
7	Badly shell rotted pole & badly split crossarm	F20	In N-S spur feeding Sta. 13022 at 1st pole north of tap to Sta. 10684
8	Dead vines up pole		1st pole west of Dawnview Rd. at the corner of the circuit
12	Missing guy marker		1st pole east of Sta. 20117 in the tap going east from Union School Rd.
12	Missing guy marker		At Sta. 14974 on Union School Rd.
12	13 woodpecker holes in pole & missing guy marker	G1, G2	At Sta. 13023 on Union School Rd.
12	2 missing guy markers		At Sta. 13046 on Union School Rd.
13	Split pole top & 2 woodpecker holes in pole	G3	1st pole south of Sta. 13047 on Union School Rd.
13	Lightning damaged pole top		Union School Rd. at tap going east to Sta. 19895
13	Woodpecker holes in two poles		3rd & 4th poles west of Sta. 19895 in tap going east from Union School Rd.

Attachment "L"

Map No.	Item Description	Photo(s)	Location
13	Missing guy marker		1st pole west of Sta. 19895
13	Woodpecker hole in pole		On Union School Rd. at 1st pole north of tap to Sta. 19895
14	Split pole top	G4	At corner of Union School Rd. at tap to Sta. 18798
14	3(+) woodpecker holes in pole		2nd pole south of Sta. 13056 on Union School Rd.
14	Woodpecker holes in pole		1st pole south of Sta. 13056 on Union School Rd.
14	Missing guy marker		At Sta. 13056 on Union School Rd.
15	Broken spool		2nd pole east of Sta. 20051 on Union School Rd.
17	Split pole top & 2 woodpecker holes in pole top		1st pole east of Sta. 13053 on Union School Rd.
18	Woodpecker holes in 2 poles		At Sta. 18958 & at 1st pole south of Sta. 18958 in spur going north from IL Rt. 150
18	Badly shell rotted pole		1 span south of IL Rt. 150 on Willy Gully Ln.
19	Broken spool		1st pole north of Sta. 13035 on Willy Gully Ln.
19	Woodpecker hole in pole		1st pole north of Sta. 20329 on Willy Gully Ln.
19	Woodpecker holes in pole		On Willy Gully Ln. at tap to Sta. 20938
20	Many woodpecker holes in pole top	F23	1st pole north of Sta. 19446 on Willy Gully Ln.
20	14(+) woodpecker holes in pole	F21, F22	At Sta. 19446 on Willy Gully Ln.
21	Several woodpecker holes in pole top	F24, F25	1st pole on south side of Surman Ln. in tap to Sta. 20256
21	Woodpecker hole in pole		On Surman Ln. at 1st pole east of tap to Sta. 19112
22	Broken spool		2 spans east of IL Rt. 150 on Briarhill Rd.
23, 24	Missing guy marker		1st pole north of tap to Sta. 19560
24	2 missing guy markers		1st pole southeast of Sta. 20580
24	Missing guy marker		At Sta. 20580 at north end of spur
25	Missing guy marker		2nd pole east of Sta. 13073 on CH 2
27	Badly shell rotted guy stub pole & missing guy marker		Guy stub pole just east of Sta. 13063 on Paradise Rd.
27	Missing guy marker		At Sta. 10162 on Paradise Rd., west of IL Rt. 150
27	Missing guy marker		1st pole east of Sta. 10162 on Paradise Rd. (at tap), west of IL Rt. 150

Attachment "M"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/20/05**
Circuit:	**Hillsboro 807 (Bunker Hill, Woodburn, & rural)**	**Inspector:**	**J. D. Spencer, w/ Mike Vandas (Ameren)**

Gen. Notes: This circuit was a next-worst performing circuit in 2004, and was a worst performing circuit in 2001. It serves Bunker Hill, Woodburn, and rural areas around and south of those communities. There are some tree clearance problems, but few structural problems. Many new pole were noted throughout the circuit. Some more lightning arresters are needed, as well as more fuses on the lateral taps.
Neither Bunker Hill nor Woodburn were labeled on the circuit maps provided. Some of the roads were also not labeled, and there were som mapping errors. There were several inaccessible cross-country sections of the circuit.

Map No.	*Item Description*	*Photo(s)*	*Location*
2 of 46	Woodpecker hole in pole		4 spans west of IL Rt. 159 in tap to Sta. 12643
3	Soft maple tree very close to primary		At Sta. 20351 north of Bunker Hill Rd.
5	Missing guy marker		1st pole east of Sta. 17019 at Cherry St., Woodburn (not labeled on map)
6	2 badly shell rotted poles		2nd & 3rd poles south of Brighton Bunker Hill Rd. in the tap to Sta. 12692
7	Trees very close to primary		North of Brighton Bunker Hill Rd. at the 1st pole south of Sta. 23608
11	Missing guy marker		1st pole east of Washington St. on Pleasant St., Bunker Hill (not labeled on map)
11	Split pole top		Guy stub pole east of Sta. 10270 on Pleasant St., Bunker Hill (not labeled on map)
12	Trees close to primary		Just south of Warren St. (CH 14) on Hickory St., Bunker Hill (not labeled on map)
12	Trees very close to primary		1st span going south from Morgan St. in tap to Sta. 15620, Bunker Hill (not labeled on map)
12	Ash tree growing into primary	G16	South of Sta. 20723 on East St., Bunker Hill (not labeled on map)
12	Damaged (hit) downguy		At Sta. 16060 on East St., Bunker Hill (not labeled on map)
16	Missing guy marker		At Sta. 12670 on Staunton Bunker Hill Rd.
17	Cedar trees very close to primary		3rd span south of Sta. 16381 on Woodburn Rd. (CH 39)
18	Lightning damaged wood braces (one hanging down)	G8	On Huette Rd. at the 6th pole north of tap to Sta. 12717

Attachment "M"

Map No.	Item Description	Photo(s)	Location
19	Several woodpecker holes in pole		2 spans east of Wood Hill Ln. (not labeled on map) in tap to Sta. 23013
19	Woodpecker hole in pole		At Sta. 21563 on Wood Hill Ln. (not labeled on map)
19	Woodpecker hole in pole		1st pole north of Sta. 22479 at south end of spur feeding south on Wood Hill Ln. (not labeled on map)
21	Broken spool		1st pole east of Sta. 12937 on Raymond Rd.
21	Woodpecker holes in pole		1st pole north of Sta. 23816, south of Raymond Rd.
24	Woodpecker holes in pole		At Sta. 12678 on Alton St., Bunker Hill (not labeled on map)
24	Missing guy marker		On Alton St. at tap to Sta. 12680, Bunker Hill (not labeled on map)
24	Missing guy marker		At Sta. 12680 north of Alton St., Bunker Hill (not labeled on map)
24	Trees very close to primary		Franklin St. between Elm & Meade Sts., Bunker Hill (not labeled on map)
24	Broken overhead guy		Across Orange St. at Oak St., Bunker Hill (not labeled on map)
24	Trees very close to primary		Alton St. east of IL Rt. 159, Bunker Hill (not labeled on map)
25	2 steel braces hanging down	G9	Corner of Hickory & Elm Sts., Bunker Hill (not labeled on map)
25	Soft maple tree close to primary		Meade St. west of Hickory St., Bunker Hill (not labeled on map)
25	Trees close to primary		Hickory St. between Elm & Meade Sts., Bunker Hill (not labeled on map)
25	Missing guy marker		West side of Hickory St. just south of Grant St., Bunker Hill (not labeled on map)
26	Several woodpecker holes in pole		4 spans east of Woodburn Rd. (CH 39) on Schmidt Rd. (at corner pole where line turns south)
26	Trees very close to primary		1st span south of Schmidt Rd. in tap to Sta. 19371
30	Primary through soft maple tree	G11, G12	In 2nd span of tap going east from Ness School Rd. at Sta. 19510

Attachment "M"

Map No.	Item Description	Photo(s)	Location
30	Trees very close to primary	G10	In last span of tap to Sta. 24528, east of Moonbeam Ln.
34	Primary through top of pine trees	G13, G14	In 1st & 2nd spans of tap going south from Meadow Ln. to Sta. 19556
34	Vines on overhead transformer	G15	Sta. 19468 on Ness School Rd.
35	Woodpecker holes in 2 poles		On Snake Rd. at tap to Sta. 24659 & at 1st pole north of tap to Sta. 24659
37	Cottonwood(?) trees into primary	G6, G7	Just north of tap to Sta. 24113 on Schwinn Ln.
37	Woodpecker hole in new pole		On Schwinn Ln. at tap to Sta. 23913
37	Missing guy markers on 2 poles		On Moulton Rd. at 1st & 2nd poles west of tap to Sta. 12745
37	Woodpecker holes in 3 poles		At Sta. 22249 on Moulton Rd. & at 1st & 2nd poles west of that location
37	Cedar trees very close to primary		2nd span north of Moulton Rd. on Rust Rd.
39	Missing guy marker		At Sta. 12735 on Snake Rd.
39	Missing guy marker		On the west side of Snake Rd. at the tap to Sta. 20680
39	Several woodpecker holes in pole	G5	On the west side of Snake Rd. 1 span south of Sta. 12737
40	Trees very close to primary		Last span in tap to Sta. 23049, west of Huette Rd.
43	Broken spool		1st pole north of Sta. 18218 on Snake Rd.
45	Vines up pole to transformer		Sta. 22380, east of Zimmerman Rd.
46	Woodpecker hole in pole & split pole top (not bad)		1st pole west of Sta. 12752, east of Zimmerman Rd.

Attachment "N"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/27-28/05**
Circuit:	**Danville 212 (Georgetown, Olivet, Vermilion Grove, & rural)**	**Inspector:**	**J. D. Spencer, w/ Bev Hall (Ameren) & Mark Hiple (AmerenIP-- 4/27)**

Gen. Notes: This circuit was a worst performing circuit in 2004, serving a southern part of Georgetown, Olivet, Vermilion Grove, and a large rural area mostly east of those communities. Very few tree problems were noted. Several new poles are scattered throughout the circuit, and animal guards are plentiful. Additional lightning arresters are needed in some of the rural areas. None of the communities were labeled on the circuit maps provided, and several of the roads were also not labeled. There were many mapping errors. There were several inaccessible cross-country sections of the circuit. ***One NESC violation was noted.***

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 80	Broken spacer cable spacer		On CH 23 in front of Georgetown Indianola Rd. substation in adjacent Ckt. 211
1	Bottom phase conductor out of spacer cable spacer		1st span west of Sta. 19102 on CH 23 (east of Rd. 1520E)
1	Missing guy marker		2nd pole north of Sta. 15809 in the alley east of Morgan St., Georgetown (not labeled on map)
2	Missing guy marker		Corner of Rds. 1520E & 700N
2	Lightning damaged pole top		1st pole north of tap to Sta. 10658 on Rd. 1520E
3	Trees into primary		West of Rd. 1520E in tap to Sta. 19341 (tap de-energized & grounded)
4	Missing guy marker		1st pole west of Sta. 18298 on W. South 2nd St., west of S. Logan St., Georgetown (not labeled on map)
4	Missing guy marker		2nd pole west of the tap to Sta. 20858 on W. North 2nd St., Georgetown (not labeled on map)
4, 5	Missing guy marker		1st pole east of Sta. 17843 on E. West St. (CH 26), Georgetown (not labeled on either map)
6	Missing guy marker		In tap to Sta. 18677 at the 1st pole west of Sta. 18677 on the east side of Georgetown (not labeled on map)
6	Broken spool		1st pole south of Sta. 10014 in tap going north from State Rt. 23 & 5
7	Missing guy marker		2nd pole north of Sta. 17177 on Rd. 1750E
7	Broken spool		1st pole south of Sta. 17177 on Rd. 1750E
7	Broken spool		1st pole south of State Rt. 23 in tap to Sta. 12450

Attachment "N"

Map No.	Item Description	Photo(s)	Location
7, 15	Missing guy marker		At Sta. 12453 in tap going south from State Rt. 23
9	Several woodpecker holes in pole		West side of Lick Skillet Rd. at E-W road not labeled on map (at tap going west to Sta. 20459)
9	Missing guy marker		At tap to Sta. 18782 on Lick Skillet Rd.
10	Broken spool		1 span east of Rd.1740E on CH 26
11	Broken spool		1st pole south of Sta. 11072 on Lick Skillet Rd.
13	Trees close to primary		2nd span from end of line in tap to Sta. 15065
15	Missing guy marker		At Sta. 12460 in tap going south from State Rt. 23
18	Broken spool		3rd pole south of Sta. 11779 on Rd. 1950E
19	Missing guy marker		At tap to Sta. 12403 in N-S section of line west of Rd. 1950E
19	Missing guy marker		3rd pole south of tap to Sta. 12403 on Rd. 1950E
20	Broken downguy		1st pole south of tap to Sta. 16866 (roads not labeled on map)
25	Missing guy marker		Corner of Camp Assurance Rd. & Rd. 2100E
26	Missing guy marker		1st pole north of Sta. 10445 on Rd. 2100E
26	Woodpecker holes in pole top		At Sta. 22070 on Rd. 2100E
26	Woodpecker holes in pole		At Sta. 12345 on Rd. 2100E
28	Trees not trimmed in de-energized section of line (several spans)		Along CH 27 and along N-S road not labeled on map
29	Missing guy marker		1st pole south of tap to Sta. 20840
30	Hanging steel brace		1st pole NW of tap to Sta. 11791 on State Rt. 23
32	Blown lightning arrester		7 spans west of Sta. 22310 on Rd. 700N
34	Split pole top	H1	2nd pole north of tap to Sta. 19744 on Rd. 2130E
36	**Code clearance violation (NESC 234.B.2):** Single-phase primary approx. 1 ft. above a skip-span pole with secondary & neutral attached.	H2	Skip-span pole just west of Sta. 19488 on Rd. 650N
38	Broken spool		8th pole east of Sta. 10212 on Rd. 600N
38	Woodpecker hole in pole top		6th pole east of Sta. 10212 on Rd. 600N
39	Lightning damaged pole top		1 span south of State Rt. 23 on Rd. 2100E
39	Missing guy marker		At Sta. 12338, 3 spans south of State Rt. 23 on Rd. 2100E

Attachment "N"

Map No.	Item Description	Photo(s)	Location
39	Missing guy marker		On State Rt. 23 at tap to Sta. 11979 (mapped incorrectly)
43	Broken crossarm (2nd arm may not be needed)	H11	At Sta. 19788 west of Cedar St. in the alley north of Indiana Ave., Olivet (not labeled on map)
44	Broken 12kV suspension insulator	H12	Corner of Rd. 1500E & College St., Olivet (not labeled on map)
44	Pine tree very close to primary		2nd span east of Sta. 16951 on Elm St., Olivet (not labeled on map)
45	Shell rotted pole		1st pole west of Sta. 14453 in the alley north of Illinois Ave., Olivet (not labeled on map)
45	Neutral pin through arm		1st pole east of Sta. 14453 in the alley north of Illinois Ave., Olivet (not labeled on map)
46	Damaged downguy		Corner of IL Rt. 150 & Main St., Vermilion Grove (not labeled on map)
48	Broken lightning arrester	H13	At Sta. 11583 north of Main St. on N-S road not labeled on map, Vermilion Grove (not labeled on
48	Badly shell rotted pole		At Sta. 10049 on Main St., Vermilion Grove (not labeled on map)
48	Badly shell rotted pole top		1st pole east of Sta. 19361 on Main St., Vermilion Grove (not labeled on map)
49	Woodpecker holes in 2 poles		1 & 2 spans north of Main St. on Rd. 1400E
49	Approximately 4 woodpecker holes in pole top		1st pole south of Sta. 19340 on Rd. 1400E
49	Missing guy marker		1st pole north of Sta. 19340 on Rd. 1400E
49	Broken spool		3 spans north of Main St. in tap to Sta. 10058
49	Blown lightning arrester		At Sta. 10058 in tap going north from Main St.
50	Missing guy marker		Corner of Rds. 1330E & 400N
50	2 woodpecker holes in pole top		2 spans north of Main St. on Rd. 1350E
51	At least 6 woodpecker holes in pole top	H14, H15	2nd pole west of Sta. 10091 on Rd. 470N (not labeled on map)
52	Broken spool		1st pole north of City Rd. on Rd. 1630E
53	Missing guy marker		At tap feeding east from pole 2 spans SE of Sta. 11970 (mapped incorrectly)

Attachment "N"

Map No.	Item Description	Photo(s)	Location
53	2 missing guy markers		In tap feeding north from Rd. 550E (should be 550N?) at 2nd pole south of Sta. 20926
53	Broken ground wire (at bottom of pole)		3 spans north of Rd. 550E (should be 550N?) on Rd. 1650E
53	At least 5 woodpecker holes in pole		4 spans north of Rd. 550E (should be 550N?) on Rd. 1650E
54	Missing guy marker		1st pole west of tap to Sta. 20498 on Rd. 600N (not labeled on map)
54	Missing guy marker		On Rd. 600N (not labeled on map) at tap to Sta. 18586
54	Missing guy marker		At Sta 18586 in tap going north from Rd. 600N (not labeled on map)
54	4 large woodpecker holes in pole	H17	On Rd. 600N (not labeled on map) at tap to Sta. 11067
54	Blown lightning arrester		1 span west of Rd. 1720E on Rd. 600N (not labeled on map)
54	Woodpecker hole in pole		On Rd. 1720E 1 span north of Rd. 640N (not labeled on map), 2 poles south of Sta. 11083)
55	2 woodpecker holes in pole top		1 span south of Rd. 660N (not labeled on map) on Rd. 1720E (1st pole south of Sta. 11084)
56	Lightning damaged crossarm	H16	On City Rd. 3 spans east of Rd. 1650E
58	Missing guy marker		On west side of Rd. 1720E at Rd. 480N
58	Missing guy marker		On north side of Rd. 480N in tap to Sta. 19516
62	Missing guy marker		On Rd. 1930E on the north side of Yankee Branch
64	Deteriorated crossarm	H3	On Yankee Branch Rd. at Rd. 1980E
64	Woodpecker hole in pole top		1st pole west of Sta. 11112 on Yankee Branch Rd.
65	Missing guy marker		1st pole west of tap to Sta. 16025 on Yankee Branch Rd.
65	Woodpecker hole in pole top		On Yankee Branch Rd. at tap to Sta. 16025
65	Woodpecker hole in pole top		On Yankee Branch Rd. at 1st pole east of tap to Sta. 16025
67	Blown lightning arrester (field side)		On CH 26 4 spans north of Hester Ln.
69	Badly split crossarm	H4, H5	3rd pole east of Sta. 11119 on Hester Ln. (CH 26)

Attachment "N"

Map No.	Item Description	Photo(s)	Location
70	Broken downguy		At tap to Sta. 11131 on Hester Ln.
74	Badly split crossarm (saddle pinned)	H6, H7, H8	3 spans east of Rd. 2000E on CH 26
74	Hanging steel brace		2 spans south of Rd. 330N on CH 26
75	Broken spool		3 spans south of primary road crossing on Rd. 2000E
75	Burned pole & lightning damaged pole top	H9, H10	4 spans south of primary road crossing on Rd. 2000E
77	Broken downguy on guy stub pole		East side of Rd. 2100E at Rd. 330N
79	Woodpecker holes in pole top		3 spans north of Sta. 11148 on CH 26

Attachment "O"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**4/28/05**
Circuit:	**Danville 121 (Danville)**	**Inspector:**	**J. D. Spencer, w/ Bev Hall (Ameren)**

Gen. Notes: This circuit was a worst performing SAIFI circuit in 2004, and was a worst performing CAIDI circuit in 2001. It serves a small west-central part of the City of Danville. While not many problems were noted, as summarized below, it is a significant number considering the small size of the circuit. ***One NESC violation was noted.***

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 3	Pine tree growing into primary	H22	East of Sta. 16124 on Voorhees St., west of Logan Ave.
1	Shell rotted pole		1st pole north of Center St. in the alley east of Logan Ave.
1	Tree very close to primary & overhanging primary		Just north of Center St. in the alley east of Logan
1	Shell rotted pole		1 span south of Center St. in the alley east of Logan Ave.
1	3 shell rotted poles		In the alley east of Logan Ave. at Sta. 14731 and the next 2 poles to the south (all north of English St.)
1	Missing guy marker		1st pole east of Logan Ave. on English St.
2	Split pole top		3rd pole north of Center St. in the alley east of Chandler St.
2	Broken lightning arrester	H18	At Sta. 13509 in the alley east of Harmon Ave., north of English St.
2	**Code clearance violation (NESC 233.C.1 & Table 233-1):** Bottom phase of 12 kV spacer cable circuit approx. 6" above open wire 4 kV circuit at crossing of skip-span pole. 4 kV circuit crossarm also deteriorated.	H19, H20, H21	Southeast corner of Gilbert & English Sts. (next to Open Door Church of God)

Attachment "P"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**5/3-5/05**
Circuit:	**Jacksonville 331 (Jacksonville & rural)**	**Inspector:**	**J. D. Spencer, w/ Bev Hall (Ameren) & Steve Lashmett (AmerenIP-- 5/4)**

Gen. Notes: This circuit was a worst performing circuit in 2004, repeating from 1999. It serves a northeast portion of Jacksonville and a large rural area north and east of Jacksonville. There were scattered tree conflicts, but most were not too bad. Most of the transformers have animal guards. More lightning arresters are needed in some of the rural areas. Several new poles and crossarms are scattered throughout the circuit. There were several inaccessible areas. Several of the maps contained mapping errors. ***Three NESC violations were noted.***

Map No.	*Item Description*	*Photo(s)*	*Location*
4 of 74	Lightning damaged pole		5 spans north of Literberry Triopia Rd. (CH 19) on road not labeled on map (near west edge of map)
4	Minor lightning damage to several poles		1 to 5 spans north of Literberry Triopia Rd. (CH 19) on IL Rt. 78
4	Lightning damaged pole top	J19	5th pole south of tap to Sta. 13321 on IL Rt. 78
7	Ash tree growing into primary		1st span west of Sta. 13158 on Literberry Triopia Rd. (CH 19), west of Arcadia Rd.
9	Missing guy marker		At Sta. 10960 at end of tap going west from Arcadia Rd.
10	Lightning damaged pole top		2nd pole south of tap to Sta. 10823 on IL Rt. 78
10	Blown lightning arrester		3rd pole south of tap to Sta. 10823 on IL Rt. 78
10	Missing guy marker		NE corner of IL Rt. 78 & Heitz Rd.
10	Missing guy marker		At Sta. 12111 on Heitz Rd.
10	Trees very close to primary		Along IL Rt. 78 in first 3 spans south of Heitz Rd.
11	Broken spool		2nd pole south of Sta. 10961 on Arcadia Rd.
12	Trees very close to primary		In the tap to Sta. 13145 in the 2nd span east of Sta. 13145
13	Blown lightning arrester		3rd pole south of Sta. 10961 on Arcadia Rd.
15	Oak tree into primary		Near Sta. 13008 on IL Rt. 78
15	Woodpecker hole in pole top		1st pole on the north side of Substation Rd. in the tap to Sta. 12922
15	Blown lightning arrester		4th pole east of IL Rt. 78 on Substation Rd.
16	Missing guy marker		1st pole east of the tap going south from Substation Rd. to Sta. 12131 (tap mapped incorrectly)
16	Missing guy marker		At Sta. 12131 in tap going south from Substation Rd.

Attachment "P"

Map No.	Item Description	Photo(s)	Location
16	Trees very close to primary		In 2nd span south of Sta. 12131 in tap going south from Substation Rd.
16	2 woodpecker holes in pole	J18	At Sta. 12948 at end of tap going south from Substation Rd.
18	Trees close to primary		1st span south of Substation Rd. on Sorrill Rd.
20	Missing guy marker		At Sta. 11758 on Arcadia Rd.
21	**Code violation (NESC 279.A.2):** 69 kV downguy passing between 12 kV phase conductors without strain insulator below 12 kV conductors	J16	At 69 kV Str. 16 on IL Rt. 78 south of Valevue Acres Dr.
21	**Code violation (NESC 279.A.2):** 69 kV downguy passing between 12 kV phase conductors without strain insulator below 12 kV conductors		At 69 kV Str. 17 on IL Rt. 78 south of Valevue Acres Dr.
21	**Code violation (NESC 279.A.2):** 12 kV downguy passing between 12 kV phase conductors without any strain insulator in downguy	J17	At 69 kV Str. 18 on IL Rt. 78 south of Valevue Acres Dr.
23	Several lightning damaged poles		Along Bosier Rd. east of Hacker Rd.
24	Elm tree very close to primary		In tap to Sta. 10949 on the north side of Bosier Rd.
29	4 woodpecker holes in 69 kV Str. 26 (type W-1 wishbone structure) above distribution crossarm	J13, J14, J15	69 kV Str. 26 on Woodland Lakes Rd.
32	Primary burning pine trees		In tap to Sta. 12481 going east from East Strawn Crossing Rd. (CH 2)
32	Primary burning pine trees	J12	In 1st span south of tap to Sta. 12481 on East Strawn Crossing Rd. (CH 2)
33	Shell rotted pole		3rd pole north of E-W section of York Rd. on N-S York Rd.
33	Shell rotted pole		1st pole north of E-W section of York Rd. on N-S York Rd.
33	Shell rotted pole		1st pole west of tap to Sta. 10880 on York Rd.
34	Cedar trees into primary	I22, I23	1st span east of tap to Sta. 11969 on Baldwin Rd.
34	Shell rotted pole		2nd pole north of Sta. 10822 on IL Rt. 78
35	Oak trees close to primary		In span between Stas. 13503 & 12099 in tap going south from Baldwin Rd.
35	Pine trees into primary	I20, I21	In 1st span east of Sta. 12918 on Baldwin Rd.

Attachment "P"

Map No.	Item Description	Photo(s)	Location
39	Primary burning tops of pine trees	J10, J11	In tap to Sta. 12854 going north from Strawn Crossing Rd. near the north end of the tap
41	Shell rotted & lightning damaged pole		3rd pole north of E-W Rd. (not labeled on map), on York Rd.
42	Shell rotted pole		1st pole west of Sta. 10897 on Twyford Rd.
43	Shell rotted pole		2 spans west of primary road crossing on Harris Rd.
43	Downguy broken & missing		3rd pole west of tap to Sta. 11967 on Harris Rd., on south side of Harris Rd. at primary road crossing
44	Shell rotted pole		1st pole west of Sta. 10892 on Harris Rd.
45	Oak tree into primary	I24, I25, J1	At Sta. 11776 on Fairfield Rd. (not labeled on map)
45	Soft maple tree very close to primary		Just west of Sta. 11776 on Fairfield Rd. (not labeled on map)
45	Missing primary downguy		At west end of spur going west from IL Rt. 78 on Fairfield Rd. (not labeled on map)
50	Shell rotted pole		1 span north of Trafton Rd. on Wohlers Rd. (CH 2)
50	2 shell rotted poles		1st pole west & 1st pole east of Sta. 10866 on Trafton Rd.
51	2 shell rotted poles		3rd & 4th poles west of Matson Rd. on Trafton Rd.
53	Maple trees into primary	I19	1st span in tap going west from Rainbow Ln. to Sta. 13242
53	Missing guy marker		At Sta. 10375 at north end of tap going north from Strawn Crossing Rd.
54	Pine trees into primary	I18	1st span north of Strawn Crossing Rd. on Brunes Rd.
54	Missing guy marker		SE corner of Strawn Crossing Rd. & Brunes Rd.
54	Missing guy marker		At Sta. 10876 on Brunes Rd.
57	Trees close to primary		At & south of Sta. 10229 on N. Prairie St., Jacksonville
57	No downguy behind primary deadend		At Sta. 10212 on N. Fayette St., Jacksonville
57	Ash & hard maple trees very close to primary		Just north of W. Independence St. on N. Fayette St., Jacksonville
57	Primary through sycamore tree	J2, J3	Near Sta. 10207 on N. Main St., Jacksonville (south of W. Independence St.)

Attachment "P"

Map No.	Item Description	Photo(s)	Location
58	Soft maple tree growing into primary	I10	Just south of Sta. 12919 on Doolin Ave., Jacksonville (south of E. Oak St.)
58	Oak tree very close to primary	I9	Just north of Sta. 11457 on Doolin Ave., Jacksonville (south of E. Oak St.)
58	Oak tree growing into primary	I7, I8	Just north of Sta. 12967 on Doolin Ave., Jacksonville (south of E. Oak St.)
58	Soft maple tree growing into primary	I6	2nd span south of Sta. 10353 on Cox St., Jacksonville (north of E. Independence St.)
58	Missing guy marker		NE corner of Farrell St. & N. Clay Ave., Jacksonville
63	Oak tree into spacer cable primary	J6	Just west of Sta. 10254 on W. Lafayette St., Jacksonville
63	Hard maple tree into spacer cable primary	J7, J8	Just east of Sta. 10254 on W. Lafayette St., Jacksonville
63	Sycamore tree into single phase primary	J9	Just south of Sta. 10044 on Bedwell St., Jacksonville
63	Shell rotted pole		1st pole north of Sta. 10151 on Bedwell St., Jacksonville
63	Trees very close to primary		Just north of Sta. 10151 on Bedwell St., Jacksonville
63	Primary through edge of tulip tree	J5	2nd span west of Sta. 10225 on W. Douglas Ave., Jacksonville
63	Hard maple tree growing into primary		2nd span west of Sta. 10225 on W. Douglas Ave., Jacksonville
63	Hard maple tree into primary	J4	Just west of N. Diamond St. on W. Douglas Ave., Jacksonville
63	Trees close to primary		At Sta. 11512 on N. Prairie St., Jacksonville
64	Deteriorated crossarms (buckarm corner)	I1, I2	Corner of E. State St. & Blackburn Alley, Jacksonville
64	Pin oak tree into primary	I3, I4, I5	1st span north of E. State St. on Howe St., Jacksonville
65	Maple trees into primary		Green St. just south of Center St., Jacksonville
65	Maple trees close to primary		East of Sta. 11559 on Center St., Jacksonville
66	Trees into primary	I17	At Sta. 11114 on CH 3 (Old State Rd.), east of Jacksonville
71	2 large woodpecker holes in pole top		Approximately 4 poles south of tap to Sta. 13710 on Fox Ln.

Attachment "Q"

Summary of Distribution Circuit Field Inspection by ICC Staff

Utility:	**AmerenIP**	**Date:**	**5/11/05**
Circuit:	**Decatur 143 (Decatur & rural)**	**Inspector:**	**J. D. Spencer, w/ Craig Boland (Ameren)**

Gen. Notes: This circuit was a worst performing circuit in 2004, serving a small eastern part of Decatur and a rural area east of Decatur. There were no major tree conflicts, and many new poles were noted throughout the circuit. Most of the transformers have animal guards. Lightning damage was noted in many locations, but most of the damage was not major. More lightning arresters are suggested in the rural areas. More tap fusing is also needed. There were several inaccessible and underground areas. Several of the maps contained mapping errors.

Map No.	*Item Description*	*Photo(s)*	*Location*
1 of 31	Blown lightning arrester		At Sta. 20682 on N-S road (not labeled on map)
1	Vines up transformer pole	K17	At Sta. 27124 on N-S road (not labeled on map)
1	Broken downguy		SW corner of N. Country Club Rd. & Bender Rd. & Township (sp?) Rd.
2	Lightning damaged pole top	K16	1st pole west of Lost Rd. on Norfolk Rd. (near intersection)
2	Hanging steel brace		1 span west of 70th St. on Norfolk Rd.
6	Lightning damaged pole (marked for replacement)		4th pole south of Sta. 12550 on 70th St.
8	Shell rotted pole		2nd pole east of Sta. 17367 on Melwood Ave., Decatur
9	Missing guy marker		1st pole north of Sta. 17778 on Excelsior St., Decatur
9	Evergreen trees very close to primary	K14, K15	1st pole south of Sta. 23840 on Excelsior St., Decatur
12	Lightning damaged pole top (minor)		1st pole east of Sta. 17270 on IL Rt. 105
14	Missing guy marker		Just west of Excelsior St. on North Fork Rd., Decatur
14	Field side steel pin leaning badly (in old wood pin hole)		1st pole north of Sta. 26206 on Excelsior St., Decatur
15	4 badly shell rotted poles		1st, 2nd, 4th, & 6th poles south of Excelsior School Rd. in tap to Sta. 30089
17	Split pole top		4th pole south of Sta. 19685 on CH 59
20	Lightning damaged pole top (minor)		2nd pole west of CH 59 on Ridge Rd.
21	Lightning damaged pole top (minor)		5th pole west of tap to Sta. 18501 on Ridge Rd.
25	Badly shell rotted pole		At Sta. 15954 on Beacon Dr., Decatur
27	Lightning damaged pole top (minor) & broken ground wire		1st pole south of Sta. 13075 on Bois D Arc Rd.
27	Lightning damaged pole top (minor)		2 spans east of Bois D Arc Rd. on Ocean Trail Rd.

Attachment "R"

Summary of Distribution Circuit Spot Checks by ICC Staff

Utility:	**AmerenIP**	**Dates:**	**3/9/05, 4/12/05, 4/20/05**
Circuits:	**Champaign 222, Decatur 192, Decatur 190, Hillsboro 803**	**Inspector:**	**J. D. Spencer, w/ Bev Hall (Ameren)**

Gen. Notes: These are spot-checks of AmerenIP circuits, consisting either of follow-ups on prior year circuit problems or of new problems found that are not associated with other circuit inspections performed by ICC Staff. ***Three NESC violations are noted.***

Circuit--Date	*Item Description*	*Photo(s)*	*Location*
Cha222--3/9/05	Bottom phase of spacer cable sagging to within 12" to 18" of lower circuit due to broken spacer (NESC minimum clearance = 12").	A20, A21	Hickory St. south of North St. (in railroad crossing span), Champaign. (Champaign Circuit 222).
Cha222--3/9/05	Similar situation as above, with slightly more clearance		Hickory St. just north of Columbia Ave., Champaign. (Champaign Circuit 222)
Cha12kV--3/9/05	Verified correction of prior year clearance problem--inadequate spacer cable clearance over traffic signal mast arm. New pole added for support, clearance okay now.		Intersection of Mattis & Bradley Aves., Champaign. (Champaign 12 kV Circuit)
Dec192--4/12/05	**Code structural strength violation (NESC 261.D.4.c):** Single wood crossarms supporting a 3-phase crossing of a limited access highway, on both sides of the crossing (double arms required). ***The single crossarm on the north side of the crossing is badly split.***	E2, E3, E4, E5, E6	Crossing of I-72 at the Niantic exit, Exit 128. (Decatur Circuit 192)
Dec190--4/12/05	**Code structural strength violation (NESC 261.D.4.c):** Single wood crossarms supporting a 3-phase crossing of a limited access highway, on both sides of the crossing (double arms required).		Crossing of I-72 at the Illiopolis exit, Exit 122. (Decatur Circuit 190)
Hil803--4/20/05	**Code clearance violation (NESC 233.C.1 & Table 233-1):** 12 kV spacer cable primary crossing over a street light secondary cable with 6" or less clearance. (Secondary cable is covered with line hose.)	G17, G18, G19	Corner of Central Ave. (Rt. 138) & E. Oak St., Benld--next to Benld Laundry. (Hillsboro Circuit 803)

MEMORANDUM

TO: Roy Buxton, Engineering Department Manager

FROM: Jim Spencer, Senior Electrical Engineer

DATE: August 17, 2005

RE: Tree Conditions in AmerenIP's Jacksonville & Decatur Service Territories

1. Introduction

During May and June, 2005, I performed random inspections of tree conditions near AmerenIP electric lines in Jacksonville, South Jacksonville, and Decatur. I was accompanied on most of these inspections by Ameren personnel as follows:

Date(s)	Location(s)	Ameren Personnel
5/3/05	Jacksonville & S. Jacksonville	Bev Hall & Tom Beerman
5/3-5/05	Jacksonville Circuit 331	Bev Hall & Steve Lashmett (IP)
5/10/05	Decatur	Craig Boland & Tom Beerman
5/11/05	Decatur Circuit 143	Craig Boland
6/20/05	Decatur	None

I performed the inspections by driving around the areas chosen and looking at trees near AmerenIP overhead electric lines. Except for the portions of worst performing circuits 331 and 143 within the cities of Jacksonville and Decatur, respectively, I performed the inspections without regard to circuit identification and without the use of circuit maps. This memorandum documents the results of these field inspections and my assessment of the state of tree trimming on the above dates in Jacksonville, South Jacksonville, and Decatur.

Staff's most recent general inspections of tree conditions in AmerenIP's service territory prior to this year's inspections were performed in the summer of 2004. The results of those earlier inspections were documented in my memorandum to you dated October 19, 2004. While I found a lot of variability in the quality of IP's tree trimming in the various communities inspected in 2004, I found the condition of tree trimming in Jacksonville and Decatur to be especially bad at that time, stating that there were "serious tree conflicts with IP lines scattered over large portions of the towns." I also stated in the 2004 memo: "In general, I find that Illinois Power's overall tree trimming program has deteriorated over the past two years, most significantly in Jacksonville and Decatur."

Because of the continuing tree trimming problems in Jacksonville and Decatur in recent years, I chose those communities for tree inspections again this year. Additional random inspections of tree conditions elsewhere in AmerenIP's service territory have not been conducted to date in 2005, primarily due to budget constraints. I inspected seventeen of AmerenIP's worst performing circuits, however, finding tree trimming to be very well done on about half of them, and mixed results on the others. This will be described more specifically in my reliability assessment report for AmerenIP.

2. Findings

I have summarized my field notes of the 2005 AmerenIP tree trimming inspections in Jacksonville, South Jacksonville, and Decatur in the spreadsheet labeled "Summary of Tree Conditions Field Inspections by ICC Staff" at the end of this memorandum.

Tree trimming in most of Jacksonville has improved significantly this year from last, but I still noted many tree conflicts, mostly in the northeast part of town. Several of these tree conflicts were on Circuit 331, an AmerenIP worst-performer in 2004. Trimming in South Jacksonville looked good, overall, with only two close clearance locations noted. Enough tree trimming problems remain in Jacksonville, however, after I have pointed out deficiencies there for four years in a row now, that I continue to be surprised at AmerenIP's lack of emphasis on tree trimming in that community. I do not believe the Ameren merger has helped in this regard. Figures 1 through 8 show examples of some of the tree conflicts I noted in Jacksonville this year.

Figure 1 (Photo 05I4)
Pin oak tree into primary
1st span north of E. State St. on Howe St., Jacksonville

Attachment "S"

Figure 2 (Photo 05I7)
Oak tree growing into primary
Doolin Ave. S. of Oak St., Jacksonville

Figure 3 (Photo 05I10)
Soft maple tree growing into primary
Doolin Ave. S. of Oak St., Jacksonville

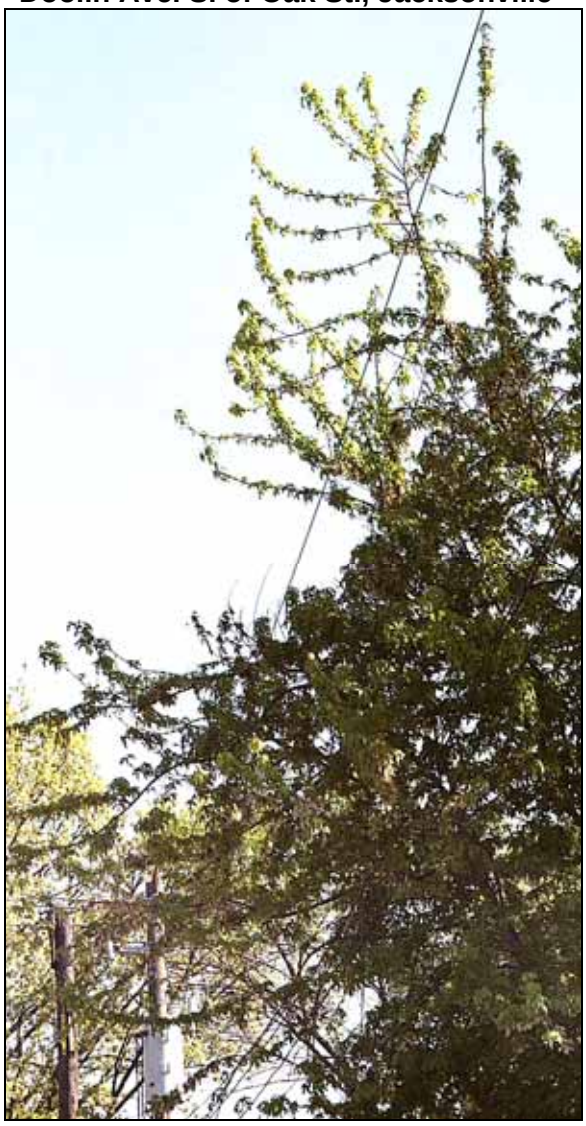


Figure 4 (Photo 05I11)
Crimson King maple growing into primary
Freedman St. E. of Cherry St., Jacksonville

Figure 5 (Photo 05I14)
Soft maple tree very close to primary
Center St. E. of Green St., Jacksonville

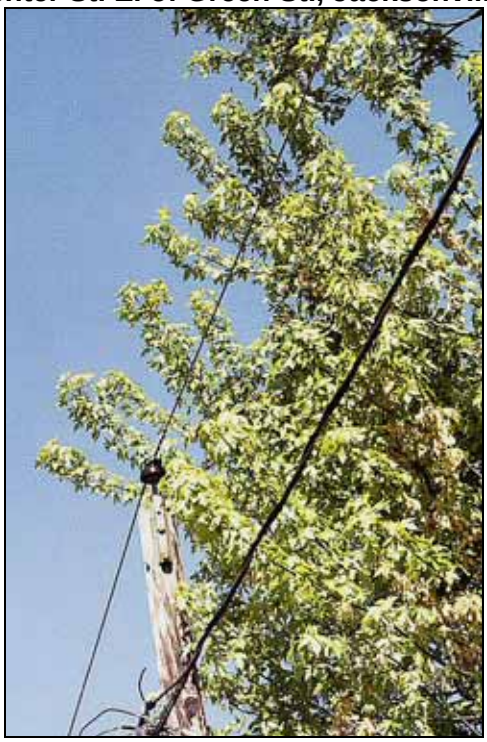


Figure 6 (Photo 05J2)
Primary through sycamore tree
Main St. S. of Independence, Jacksonville

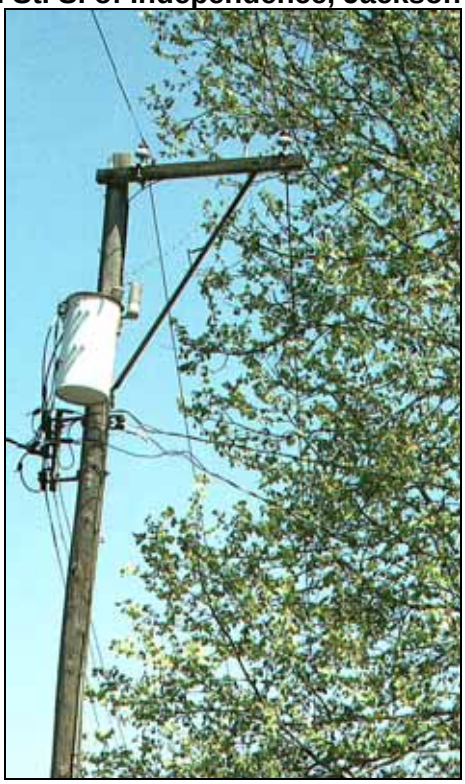


Figure 7 (Photo 05J6)
Oak tree into spacer cable primary
Lafayette W. of Bedwell, Jacksonville

Figure 8 (Photo 05J8)

Hard maple tree into spacer cable primary Lafayette St. west of Bedwell, Jacksonville

AmerenIP has trimmed many of the trees I found to be in conflict with its lines in Decatur last year, and tree trimming in Decatur, overall, has improved during the past year. I found several tree conflicts with AmerenIP lines in Decatur again this year, however, some of which are shown in Figures 9 through 11.

Figure 9 (Photo 05K2)

Siberian elm tree into single-phase primary Garfield Ave. east of 24th St., Decatur

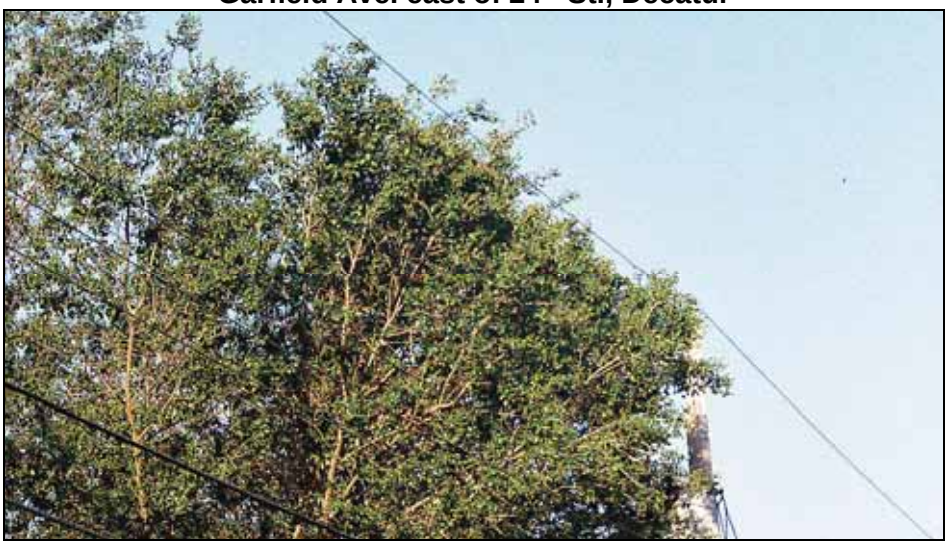


Figure 10 (Photo 05K4)
Soft maple tree growing into 3-phase primary
Garfield Ave. between Union & Edward Sts., Decatur

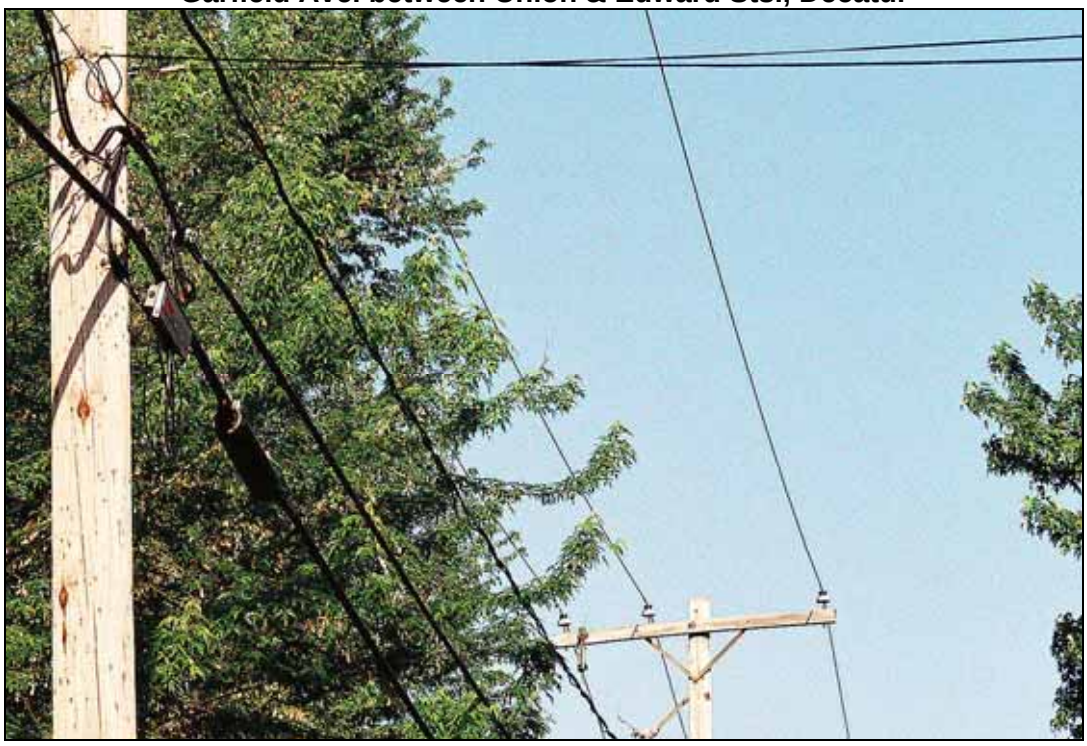


Figure 11 (Photo 05P6)
Soft maple trees growing into 3-phase primary
N. MacArthur Rd. north of Buckingham Dr., Decatur

3. Conclusions

The good news is that tree trimming in both Jacksonville and Decatur has improved noticeably from what it was a year ago.

The bad news is that I still found too many tree conflicts during this year's inspections in both cities. Based on the evidence in these two areas of AmerenIP's service territory, I have no reason to believe that Ameren has applied the resources necessary to adequately recover from its deficient tree trimming program noted during my inspections of a year ago. As recently as three years ago, Illinois Power had a very good tree trimming program. The program has deteriorated since then, and though it has improved during the past year in Jacksonville and Decatur, it is not back to where it needs to be. I do not believe the Ameren merger has helped.

NESC Rule 218(A)(1) and its associated note state the following:

> "Trees that may interfere with ungrounded supply conductors should be trimmed or removed.
>
> *NOTE:* Normal tree growth, the combined movement of trees and conductors under adverse weather conditions, voltage, and sagging of conductors at elevated temperatures are among the factors to be considered in determining the extent of trimming required."

The problem areas discussed in this memo and the photos shown are meant to demonstrate that AmerenIP still has a significant amount of work to do to achieve *and maintain* a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 in Jacksonville and Decatur and, I can only suspect, in other parts of its service territory.

4. Recommendations

- AmerenIP should investigate the problem areas in Jacksonville and Decatur discussed in this memorandum to determine why those areas are not in compliance with NESC Rule 218. It should bring those areas into compliance as soon as practical.

- AmerenIP should assure that it meets the requirements of NESC Rule 218 throughout its service territory by assuring that all trees near its electric lines are trimmed such that there are no tree contacts with its energized primary conductors before it returns to trim them again.

- Staff should perform random tree condition inspections throughout AmerenIP's service territory during FY06.

Attachment "S"

Summary of Tree Conditions Field Inspections by ICC Staff			
Utility:	**AmerenIP**	**Date:**	**5/3-5, 5/10, & 5/11/05; 6/20/05**
Circuits:	**Random**	**Inspector:**	**J. D. Spencer, w/Tom Beerman- 5/3 & 5/10, Bev Hall- 5/3-5, Craig Boland- 5/10 & 11 (Ameren), & Steve Lashmett- 5/3-5 (AmerenIP)**
Gen. Notes:	Although tree trimming throughout most of Jacksonville was significantly improved from 2004, many tree conflicts were still noted. Most of the conflicts were in the northeast part of town on worst-performing circuit 331. Tree trimming in Decatur was also noticeably improved from 2004, but several scattered tree conflicts were still noted.		

Town	*Item Description*	*Photo(s)*	*Location*
Jacksonville			
	Hard (Crimson King) maple trees growing into primary	I11, I12	Freedman St. east of Cherry St.
	Soft maple tree very close to primary	I13, I14	Center St. east of Green St.
	Trees close to primary		At & south of Sta. 10229 on N. Prairie St.
	Ash & hard maple trees very close to primary		Just north of W. Independence St. on N. Fayette St.
	Primary through sycamore tree	J2, J3	Near Sta. 10207 on N. Main St. (south of W. Independence St.)
	Soft maple tree growing into primary	I10	Just south of Sta. 12919 on Doolin Ave. (south of E. Oak St.)
	Oak tree very close to primary	I9	Just north of Sta. 11457 on Doolin Ave. (south of E. Oak St.)
	Oak tree growing into primary	I7, I8	Just north of Sta. 12967 on Doolin Ave. (south of E. Oak St.)
	Soft maple tree growing into primary	I6	2nd span south of Sta. 10353 on Cox St. (north of E. Independence St.)
	Oak tree into spacer cable primary	J6	Just west of Sta. 10254 on W. Lafayette St.
	Hard maple tree into spacer cable primary	J7, J8	Just east of Sta. 10254 on W. Lafayette St.
	Sycamore tree into single phase primary	J9	Just south of Sta. 10044 on Bedwell St.
	Trees very close to primary		Just north of Sta. 10151 on Bedwell St.
	Primary through edge of tulip tree	J5	2nd span west of Sta. 10225 on W. Douglas Ave.
	Hard maple tree growing into primary		2nd span west of Sta. 10225 on W. Douglas Ave.
	Hard maple tree into primary	J4	Just west of N. Diamond St. on W. Douglas Ave.
	Trees close to primary		At Sta. 11512 on N. Prairie St.
	Pin oak tree into primary	I3, I4, I5	1st span north of E. State St. on Howe St.
	Maple trees into primary		Green St. just south of Center St.
	Maple trees close to primary		East of Sta. 11559 on Center St.
South Jacksonville			
	Hard maple tree close to spacer cable primary		Diamond St. just south of Greenwood Ave.
	Soft maple tree very close to primary		Greenwood Ave. east of Meadow Lane
Decatur			
	Soft maple trees growing into 3-phase primary	P6, P7	N. MacArthur Rd. north of Buckingham Dr.
	Soft maple tree growing into 3-phase primary	K3, K4	Garfield Ave. between Union & Edward Sts.
	Siberian elm tree into single-phase primary	K1, K2	Garfield Ave. east of 24th St.
	Maple trees close to primary		N. Oakland St. near Leafland Ave.
	Soft maple trees close to primary		Rock Springs Rd. west of Crossroads School Rd.
	Soft maple trees close to primary		Rock Springs Rd. between Wesley Rd. & Dipper Ln.
	Soft maple trees close to primary		South Shores Dr. (Hwy. 31) at 8th Dr.
	Trees close to primary		South Shores Dr. between Allen Bend & Sandcreek Drs.
	Locust trees very close to primary		Sandcreek Rd. just south of E. Grove Rd.
	Hard maple trees close to primary		Highland Rd. near Tempe Dr.
	Evergreen (spruce) trees very close to primary	K14, K15	Excelsior St. south of E. Melwood Ave.
	Tree into field-side phase	K13	Greenhill Rd. east of 37th St.